

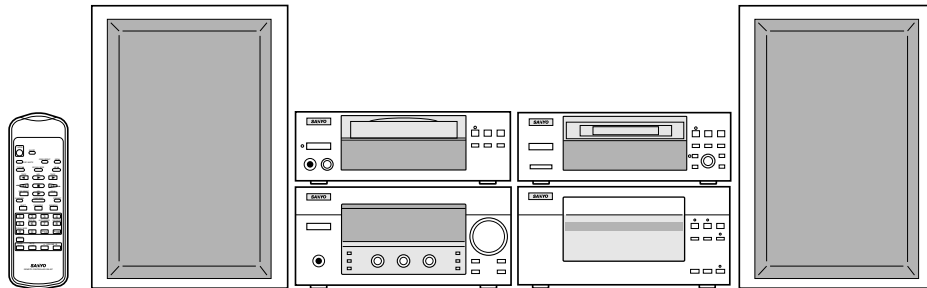
FILE NO.

Service Manual

Separate Mini Component System

DC-X5C (UK)
DC-X5CT (UK)
DC-X5D (UK)
DC-077 (XE)
DC-077C (XE)

Exapmle: DC-X5CT+MDG-X5



DVD-X5, DVD-077
 (for DC-X5D/UK,DC-077/XE)

Tape Deck **RD-X5** (UK-2)
 (Option for DC-X5C & DC-X5D)
MD Deck **MDG-X5** (UK)
 (Option for DC-X5C, DC-X5CT & DC-X5D)
Tape Deck **RD-077** (XE)
 (Option for DC-077 & DC-077C)
MD Deck **MDG-077** (XE)
 (Option for DC-077)
DVD PLAYER **DVD-077** (XE)
 (Option for DC-077)

PRODUCT CODE No.

129 597 00 (DC-X5C/UK)
 129 597 06 (DC-X5CT/UK)
 129 597 07 (DC-X5D/UK)
 129 597 01 (DC-077/XE)
 129 597 08 (DC-077C/XE)

CONTENTS

| | |
|--------------------------|---|
| Specifications | 2 |
| Arrangement | 3 |
| System Connections | 4 |
| What to do if | 6 |

TUNER/AMPLIFIER SECTION

| | |
|---|----|
| Tuner adjustments | 7 |
| Exploded view | |
| (Cabinet & Chassis) | 8 |
| Parts list | 9 |
| IC block diagram & description | 16 |
| FL display description | 19 |
| Schematic diagram | |
| (Tuner) | 20 |
| (Pre-amplifier & Main) | 24 |
| (Front) | 28 |
| Wiring diagram | |
| (Tuner, Pre-amplifier, Pre-amplifier 2 & Sub P.T) | 22 |
| (Main, Primary P.T & Secondary P.T) | 26 |
| (Front & Headphone) | 30 |
| Wiring connection | 32 |

CD SECTION

| | |
|--|----|
| Laser beam safety precaution | 33 |
| CD pick-up maintenace | 33 |
| CD pick-up replacement | 33 |
| Exploded view | |
| (Cabinet & Chassis) | 34 |
| Parts list | 35 |
| Exploded view | |
| (CD changer mechanism) | 37 |
| Parts list(CD changer mechanism) | 38 |
| Exploded view | |
| (CD base mechanism) | 38 |
| IC block diagram & description | 39 |
| Schematic diagram | |
| (CD) | 42 |
| Wiring diagram | |
| (CD) | 44 |

TAPE DECK SECTION

| | |
|--------------------------------------|----|
| Tape deck adjustment | 46 |
| Exploded view | |
| (Cabinet & Chassis) | 48 |
| Parts list | 49 |
| Exploded view | |
| (Tape mechanism) | 51 |
| IC block diagram & description | 52 |
| Schematic diagram | |
| (Deck) | 54 |
| Wiring diagram | |
| (Deck & Deck Switch) | 56 |

DVD SECTION

| | |
|-----------|----|
| DVD | 58 |
|-----------|----|

SPECIFICATIONS

TUNER SECTION

| | |
|---------------------------|------------------------------------|
| Reception frequency | FM : 87.5 - 108 MHz |
| | AM : 522 - 1,611 kHz |
| Output power | 70W x 2 (at 6 ohm, 10% distortion) |
| Inputs | VIDEO (AUDIO) : 500 mV/50k ohms |
| Outputs | SPEAKERS : 6 ohms |
| | PHONES : 8 - 32 ohms |
| | SUB WOOFER OUT : 10k ohms |
| Power requirements | AC 230V, 50 Hz |
| Power consumption | 110W |
| | 0.8W (Ecology On standby mode) |
| | 16W (Ecology Off standby mode) |
| Dimensions | 270 (W) x 122 (H) x 287 (D) mm |
| Weight | 5.3 kg |

CD SECTION

| | |
|--------------------------|------------------------------------|
| Type | Changer, 3-disc |
| Channels | 2-channel stereo |
| Sampling frequency | 44.1 kHz |
| Pick-up | Optical 3-beam semiconductor laser |
| Laser output | 0.6 mW (Continuous wave max.) |
| Wave length | 790 nm |
| Frequency response | 20 Hz to 20 kHz |
| Wow/flutter | Below measurable limits |
| Output | OPTICAL DIGITAL OUT : Optical |
| Power supply | Supplied from the Tuner/Amplifier |
| Dimensions | 270 (W) x 87 (H) x 276 (D) mm |
| Weight | 2.3 kg |

TAPE DECK SECTION

| | |
|-----------------------------|---|
| Track system | 4-track, 2-channel stereo |
| Frequency response | 50 Hz to 16 kHz (CrO ₂ tape) |
| | 50 Hz to 15 kHz (Normal tape) |
| Signal-to-noise ratio | 60dB (Dolby B NR ON) |
| Wow/flutter | 0.12%(WRMS) |
| Fast forward/rewind time .. | Approx. 110 sec. (C-60) |
| Power supply | Supplied from the Tuner/Amplifier |
| Dimensions | 270 (W) x 122 (H) x 276 (D) mm |
| Weight | 1.9 kg |

DVD SECTION

| | |
|-------------------------------------|-----------------------------------|
| Playback system | DVD-Video, Video CD, CD |
| Playback standard | PAL or NTSC |
| Laser | 44.1 kHz |
| Pick-up | |
| Wave length | 650 nm (Semiconductor laser) |
| Laser output (Continuous wave max.) | |
| | 1 mW (DVD) |
| | 0.5 mW (CD) |
| Frequency range (digital audio) | |
| | 4 Hz to 44 kHz (DVD fs:96kHz) |
| Signal to noise ratio | More than 105dB |
| Harmonic distortion (digital audio) | |
| | 0.003% |
| Wow and flutter | Below measurable level |
| Outputs | |
| Digital out | for optical cable |
| A/V Euro connector | for Euro-AV cable |
| S-Video out | Y: 1.0 Vp-p (75) NTSC , |
| | 1.0 Vp-p (75) PAL |
| | C: 0.286 Vp-p (75) NTSC |
| | 0.3 Vp-p (75) PAL |
| Video out | 1.0 Vp-p (75) |
| Audio out | 1.9 V rms |
| Power requirements | AC 230 V, 50 Hz |
| Power consumption | 16 W, Less than 2W (standby mode) |
| Dimensions | 270(W) x 87(H) x 282(D) mm |
| Weight | 2.4kg |

SPEAKER SYSTEM

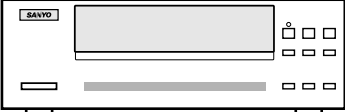
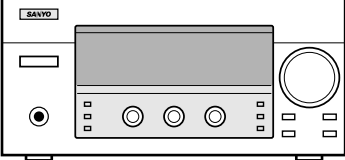
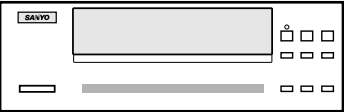
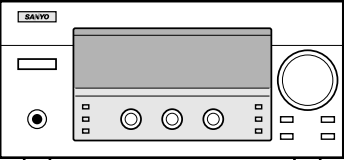
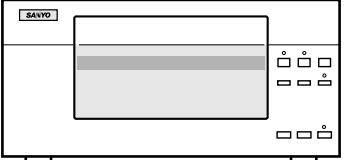



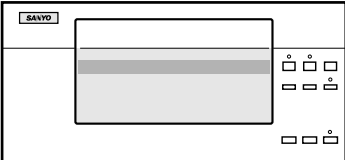
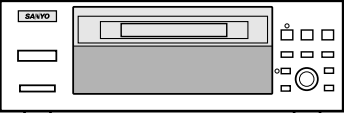
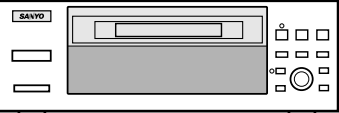
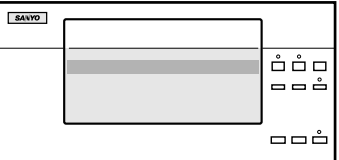
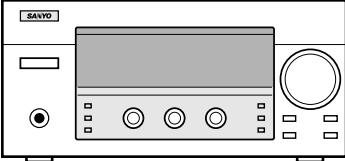
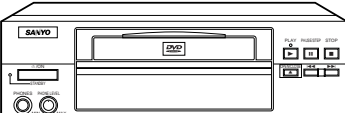
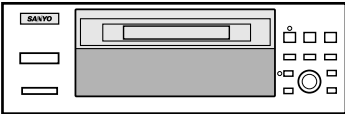
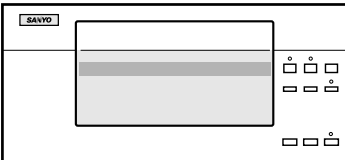
| | |
|---------------------------------------|--|
| Type | 3 way bass reflex |
| | Built-in magnetic stray field compensation |
| Unit used | Woofer : 15 cm cone type |
| | Mid range : 8 cm cone type |
| | Tweeter : 3.5 cm balance driver |
| Maximum power-handling capacity | 140W (peak) |
| Nominal impedance | 6 ohms |
| Dimensions | 230 (W) x 343 (H) x 253 (D) mm |
| Weight | 4.7 kg (per speaker) |

WIRESS REMOTE CONTROL

| | |
|--------------------------|----------------------------------|
| Power requirements | 2 "R6 (HP7)" batteries |
| Dimensions | Approx. 66(W) x 200(H) x 32(D)mm |
| Weight | Approx. 115g (without batteries) |

Specifications subject to change without notice.

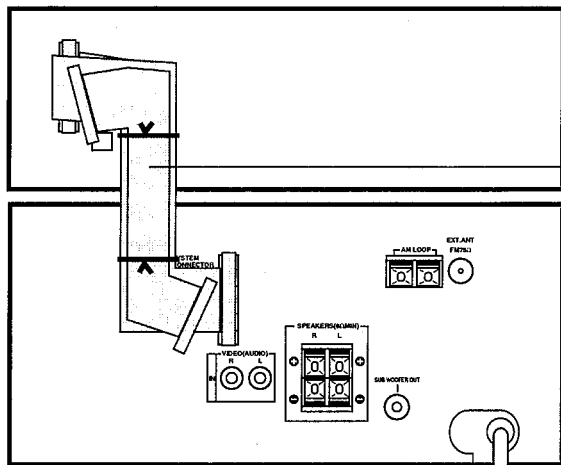
ARRANGEMENT

| System DC-X5C/DC-077C | System DC-X5CT | System DC-X5D |
|---|--|---|
| <div><p>DAD-CP-X5 DAD-CP-077 CD</p></div> <div><p>JCX-X5 JCX-077 Tuner /Amplifier</p></div> | <div><p>DAD-CP-X5 CD</p></div> <div><p>JCX-X5 Tuner /Amplifier</p></div> <div><p>RD-X5/UK Tape deck</p></div> | <div><p>DVD-X5 DVD</p></div> <div><p>JCX-X5 Tuner /Amplifier</p></div> |
| <div><p>OPTION</p><p>MDG-X5 MDG-077 MD deck</p></div> <div><p>RD-X5/UK-2 RD-077 Tape deck</p></div> | <div><p>OPTION</p><p>MDG-X5 MD deck</p></div> | <div><p>OPTION</p><p>MDG-X5 MD deck</p></div> <div><p>RD-X5/UK-2 Tape deck</p></div> |
| System DC-077 | | |
| <div><p>JCX-077 Tuner /Amplifier</p></div> <div><p>OPTION</p><div><p>DVD-077 DVD</p></div><div><p>MDG-077 MD deck</p></div><div><p>RD-077 Tape deck</p></div></div> | | |

SYSTEM CONNECTIONS

When using only the system DC-X5C (CD changer and Tuner/Amplifier)

CD changer



Tuner/Amplifier

The flat connection lead is provided as shown.

To the CD changer ←

Fixer

Tape

To the Tuner/Amplifier ←

Do not remove the fixer and protective tape.

Notes on the flat connection lead

When using the system DC-007C (CD changer and Tuner/Amplifier) and optional Tape deck and/or MD deck, remove the fixer and protective tape before connecting.

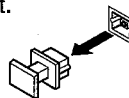
- Do not remove the tape on the plug that is not used.

Note:

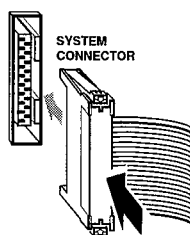
- Do not connect the mains lead to an AC outlet until all connections have been made.
- The system is not completely disconnected from the mains when the ϕ /ON button is set to the ϕ position.
- To prevent a noise interference from the mains, the core clamp is attached to the mains lead. Do not remove it.

For System DC-X5C DC-X5CT DC-077C

Before connecting, remove the cap on this socket.

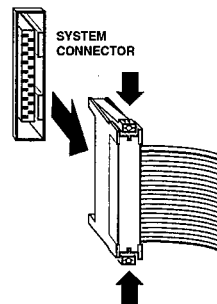


To connect, push the middle of the plug and insert it until it clicks.



If you have difficulty inserting the plug, turn it over and reinsert it.

To disconnect, while pressing both latches, remove the plug.

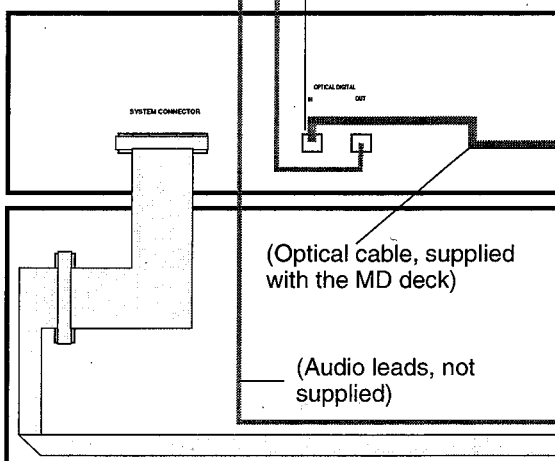


Digital equipment

Video equipment/DVD player

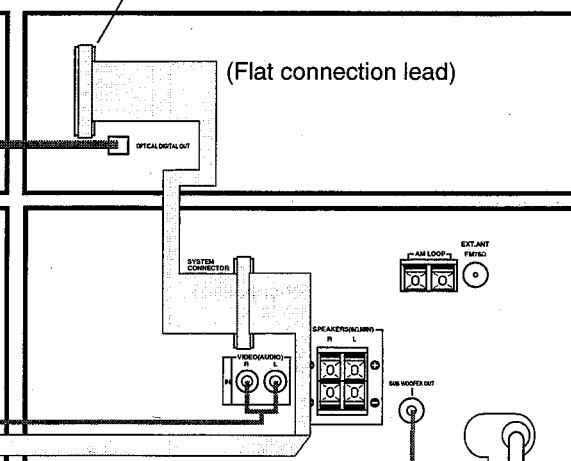
(Optical cable, not supplied)

MD deck



(Optical cable, supplied with the MD deck)

(Audio leads, not supplied)



(Flat connection lead)

Tape deck

Amplified subwoofer

(Audio lead, not supplied)

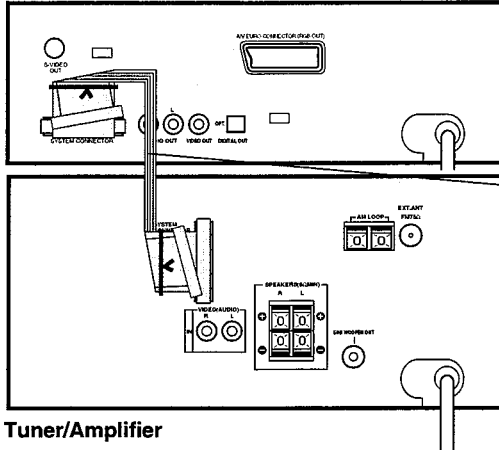
To an AC outlet

Tuner/Amplifier

SYSTEM CONNECTIONS

When using only the system DC-X5D (DVD player and Tuner/Amplifier)

DVD player



The flat connection lead is provided as shown.

To the DVD player ←

Fixer

Tape

To the Tuner/Amplifier ←

Do not remove the fixer and protective tape.

Notes on the flat connection lead

When using the system DC-X5D and optional Tape deck and/or MD deck, remove the fixer and protective tape before connecting.

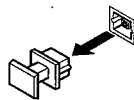
- Do not remove the tape on the plug that is not used.

Note:

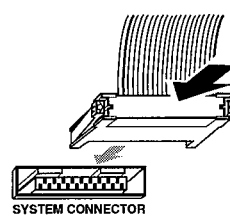
- Do not connect the mains lead to an AC outlet until all connections have been made.
- The system is not completely disconnected from the mains when the ϕ /ON button is set to the ϕ position.
- To prevent a noise interference from the mains, the core clamp is attached to the mains lead. Do not remove it.

For System DC-X5D

Before connecting, remove the cap on this socket.

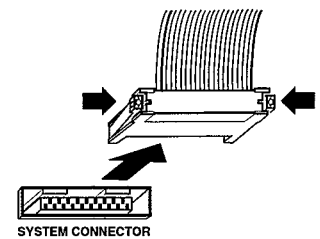


To connect, push the middle of the plug and insert it until it clicks.



If you have difficulty inserting the plug, turn it over and reinsert it.

To disconnect, while pressing both latches, remove the plug.

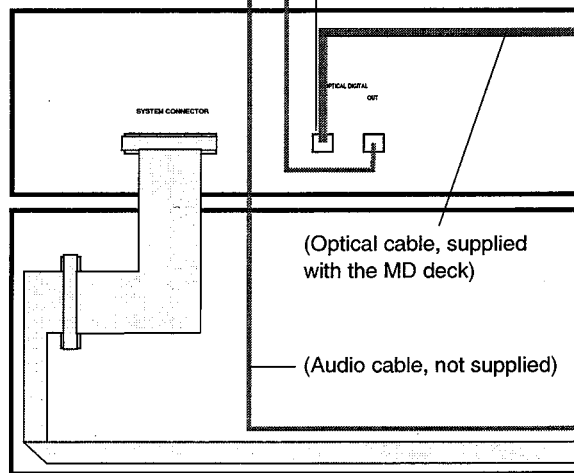


Digital equipment

Video/Auxiliary equipment

(Optical cable, not supplied)

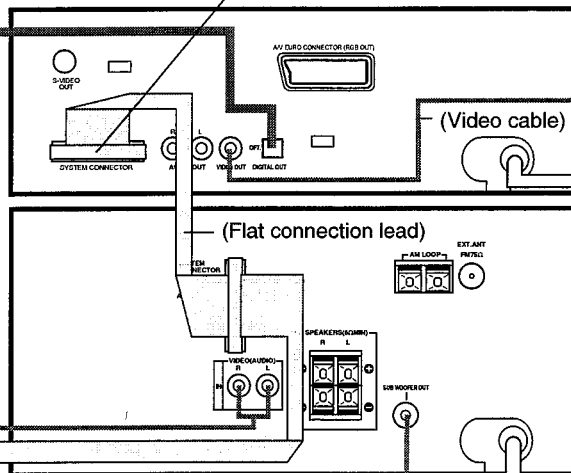
MD deck



(Optical cable, supplied with the MD deck)

(Audio cable, not supplied)

DVD player



(Flat connection lead)

(Video cable)

To an AC outlet

Tape deck

Amplified subwoofer

(Audio cable, not supplied)

To an AC outlet

Tuner/Amplifier

SYSTEM CONNECTIONS

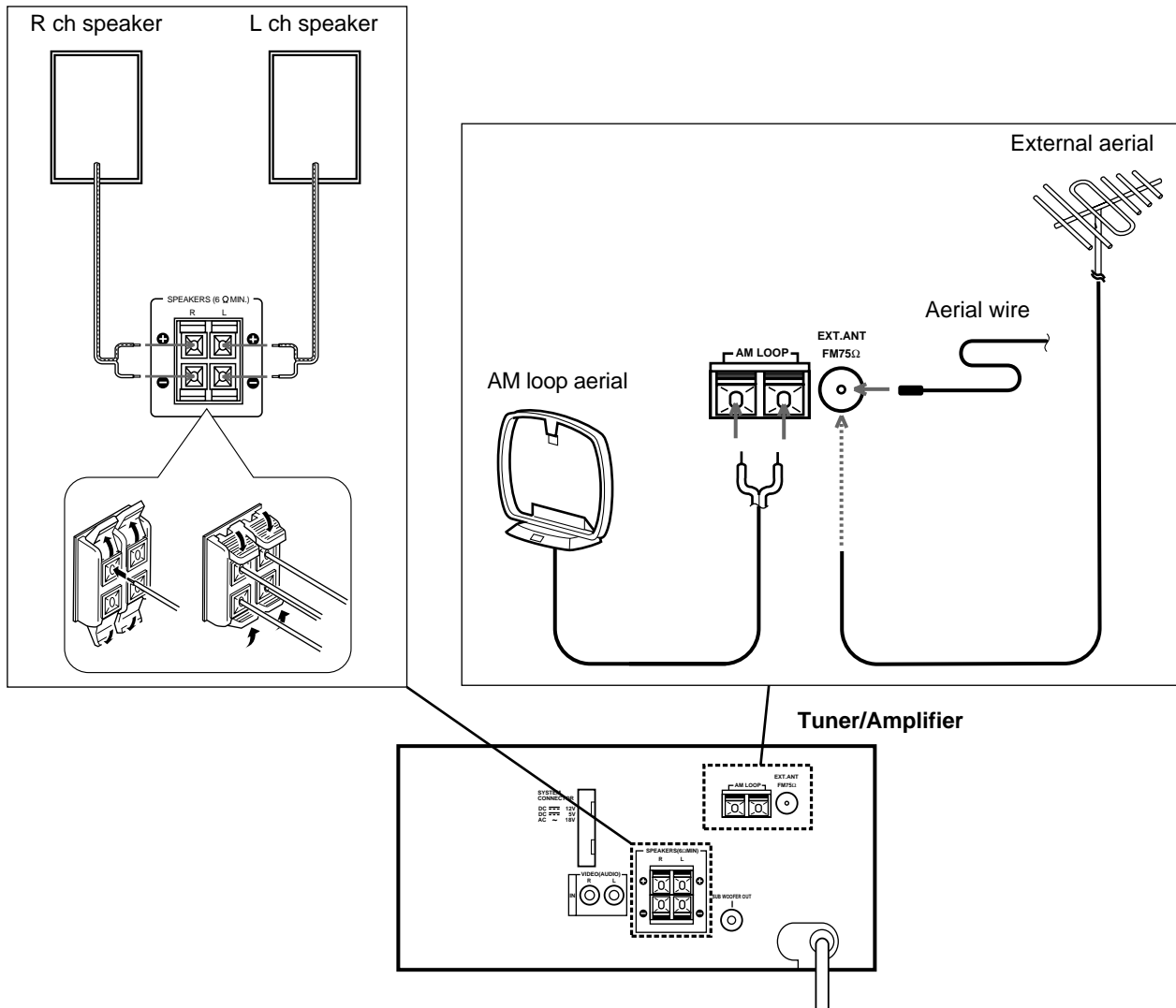
Speakers

When connecting the speakers, make sure that (+) and (–) polarities are matched properly. Otherwise, the sound may appear to be lacking in the bass range and in stability.

Connect the speaker wire with the stripe to the red terminal (+) and the other wire to the black terminal (–).

Note:

If desired, the speaker grilles can be removed.

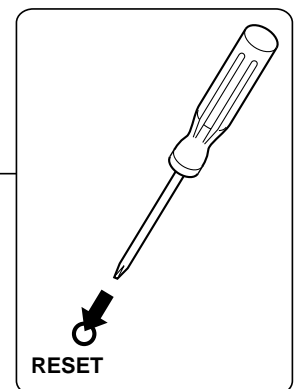
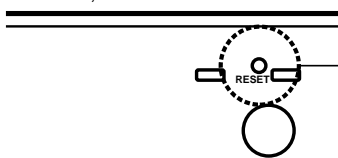


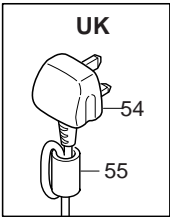
WHAT TO DO IF

If the operation of the system or display is not normal.

1. Disconnect the mains lead.
2. Press the **RESET** button (bottom of the Tuner/Amplifier) for at least 30 seconds.
3. Connect the mains lead.
4. Resume the operation.

JCX-X5, JCX-077 Set front bottom





PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL Δ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY Δ , USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
Regular type resistors are less than 1/4 W carbon type and 0 ohm chip resistors.
Regular type capacitors are less than 50 V and less than 1000 μ F type of Ceramic type and Electrical type.
N.S.P : Not available as service parts.

PACKING & ACCESSORIES

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|--|
| | 614 313 5609 | CARTON CASE, OUTER CARTON (DC-X5CT/UK) |
| | 614 310 3509 | CARTON CASE, OUTER CARTON (DC-X5C/UK) |
| | 614 314 0849 | CARTON CASE, OUTER CARTON (DC-X5D/UK) |
| | 614 310 3493 | CARTON CASE, OUTER CARTON (DC-077C/XE) |
| | 614 312 6393 | CARTON CASE, OUTER CARTON (DC-077/XE) |
| | 614 304 0231 | CUSHION,SPACE,ACCESSORY (DC-X5CT/UK) |
| | 614 304 0217 | CUSHION,SPACE,ACCESSORY (DC-X5C/UK, DC-X5D/UK, DC-077C/XE) |
| | 614 312 6416 | CUSHION,SPACE,ACCESSORY (DC-077/XE) |
| | 614 304 0224 | CUSHION,SPACE,SPEAKER (DC-X5C/UK, DC-X5D/UK, DC-077C/XE) |
| | 614 312 6423 | CUSHION,SPACE,SPEAKER (DC-077/XE) |
| | 614 302 5269 | CARTON CASE,INNER SLEEVE |
| | 614 302 0738 | CUSHION,FRONT |
| | 614 302 0745 | CUSHION,BACK |
| | 614 312 6430 | INSTRUCTION MANUAL (DC-X5C/UK,DC-X5CT/UK,DC-X5D/UK) |
| | 614 312 6447 | INSTRUCTION MANUAL (DC-077C/XE,DC-077/XE) |
| | 614 312 6454 | INSTRUCTION MANUAL,GREEK (DC-077C/XE,DC-077/XE) |
| | 614 245 8587 | NOTICE,AC CORD (DC-X5C/UK,DC-X5CT/UK,DC-X5D/UK) |
| | 645 036 4358 | POLY SHEET-0850X0500*NC,SET (DC-X5C/UK,DC-X5CT/UK,DC-X5D/UK) |
| | 645 036 4365 | POLY SHEET-0850X0500*NC,SET (DC-077C/XE,DC-077/XE) |
| | 614 190 5174 | LABEL,BEAB (DC-X5C/UK,DC-X5CT/UK,DC-X5D/UK) |
| | 645 033 8144 | REMOCON,RB-007 |
| | 645 036 6734 | BATTERY COVER, FOR RB-007 |
| | 645 005 1227 | ASSY,ANTENA,LOOP |
| | 614 229 4635 | ANT |
| | 614 308 5515 | ANT |
| | 645 037 7440 | ASSY,CABLE,SYSTEM 19P, SYSTEM CABLE |

CABINET & CHASSIS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------------------|
| 1 | 614 309 7457 | KNOB,ROTARY, BASS/TREBLE/UP DOWN |
| 2 | 614 309 7396 | DEC,PANEL,FRONT CENTER |
| 3 | 614 302 0486 | DEC,ESCUTCHEON,FRONT CENTER |
| 4 | 614 308 7939 | KNOB,ROTARY,VOLUME |
| 5 | 614 306 4466 | ASSY,CABINET,FRONT |
| 6 | 614 309 7198 | BUTTON,POWER,POWER |
| 7 | 614 302 0318 | BUTTON,TUNER,TUNER/FUNCTION |
| 8 | 614 309 7211 | BUTTON,CLOCK,CLOCK/TIMER |
| 10 | 614 302 4781 | ASSY,CABINET,BOTTOM |
| 11 | 614 129 1901 | FIXER,AC CORD |
| or | 614 284 1884 | FIXER,AC CORD |
| 12 | 614 309 7501 | PANEL,REAR (DC-X5C/UK, DC-X5CT/UK) |
| 12 | 614 309 7518 | PANEL,REAR (DC-077C/XE,DC-077/XE) |
| 13 | 614 129 9136 | LUG,FOR CN402 |
| 14 | 614 305 2661 | COVER,FAN,FAN COVER |
| 18 | 614 302 5122 | MOUNTING,PWB,SUB TRANS PWB L |
| 19 | 614 302 5139 | MOUNTING,PWB,SUB TRANS PWB R |
| 20 | 614 309 6979 | ASSY,CABINET,AFTER BENDING |
| 21 | 614 308 7922 | DEC,RING,VOLUME |

FIXING PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---|
| Y01 | 411 021 3503 | SCR S-TPG BIN 3X10, FRONT-BOTTOM FIX |
| Y02 | 411 021 3503 | SCR S-TPG BIN 3X10, HEAD PHONE FIX |
| Y03 | 411 021 3503 | SCR S-TPG BIN 3X10, FRONT PWB FIX |
| Y04 | 411 021 3701 | SCR S-TPG BIN 3X10,CABINET |
| Y05 | 411 021 3503 | SCR S-TPG BIN 3X10, SUB TRANS PWB |
| Y06 | 411 021 3503 | SCR S-TPG BIN 3X10,TUNER PWB |
| Y07 | 411 021 3503 | SCR S-TPG BIN 3X10, MOUNTING PWB |
| Y08 | 411 021 3503 | SCR S-TPG BIN 3X10,MAIN PWB |
| Y09 | 411 021 3503 | SCR S-TPG BIN 3X10, MOUTING HS-HS |
| Y10 | 411 020 9506 | SCR S-TPG BRZ+FLG 3X16, HS-POWER IC |
| Y11 | 411 021 3503 | SCR S-TPG BIN 3X10,HEATSINK-REG |
| Y12 | 411 021 3503 | SCR S-TPG BIN 3X10, MOUNTING HEAT SINK |

or

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---|
| Y13 | 411 001 3905 | SCR S-TPG BIN 4X6,TRANS |
| Y14 | 411 021 3701 | SCR S-TPG BIN 3X10,BOTTOM-REAR |
| Y15 | 411 021 3701 | SCR S-TPG BIN 3X10, REAR-ELECT PARTS |
| Y16 | 411 021 4609 | SCR S-TPG BIN 3X16,FAN-REAR FIX |
| Y17 | 411 021 3503 | SCR S-TPG BIN 3X10, MOUTING HS-PWB |
| Y18 | 411 021 3503 | SCR S-TPG BIN 3X10, PREAMP-PREAMP2 |

FRONT P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------------|
| 72 | 614 311 7834 | ASSY,PWB,FRONT (Only Initial) |
| BR601 | 614 291 6520 | HOLDER,MOUNT,FL_MOUNT |
| C6093 | 403 304 4802 | DL-ELECT 0.047F Z 5.5V |
| or | 403 262 8607 | DL-ELECT 0.047F Z 5.5V |
| CN601 | 645 012 5300 | SOCKET,FPC 26P,FRONT-MAIN |
| CN602 | 614 035 4911 | SOCKET,DIP 2P |
| CN603 | 614 312 1817 | ASSY,WIRE |
| CS601 | 614 125 0236 | CUSHION |
| D6001 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| D6002 | 407 099 4603 | ZENER DIODE MTZJ3.9B |
| D6012 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| D6091 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| DS601 | 408 039 8507 | PHOTO DIODE PIC-28043TE3,IR |
| FL601 | 645 032 8961 | FLOURESCENT TUBE,FL |
| IC601 | 410 388 8305 | IC M38B57MCH-A259FP |
| L6091 | 645 001 4550 | INDUCTOR,10U K |
| or | 645 031 7835 | INDUCTOR,10U K |
| Q6001 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q6002 | 405 143 6504 | TR KTA1267-GR |
| or | 405 004 4601 | TR 2SA608-F-SPA |
| or | 405 004 5103 | TR 2SA608-G-SPA |
| or | 405 006 1806 | TR 2SA933S-R |
| or | 405 006 1905 | TR 2SA933S-S |
| Q6003 | 405 141 3505 | TR KTA1266-Y |
| or | 405 141 3406 | TR KTA1266-GR |
| REF.NO. | PART NO. | DESCRIPTION |
| or | 405 004 4502 | TR 2SA608-F-NP |
| or | 405 004 5004 | TR 2SA608-G-NP |
| or | 405 006 3909 | TR 2SA952-K |
| or | 405 006 4005 | TR 2SA952-L |
| Q6004 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |

ELECTRICAL PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|---|
| 51 | 645 036 4310 | FLEXIBLE FLAT CABLE |
| 52 | △ 423 005 6509 | FUSE 250V 1.25A,PRIMARY FUSE |
| 53 | △ 645 038 7937 | TRANS,POWER,EI76.2-60 |
| 54 | △ 645 036 9797 | CORD,POWER-1.6MK (DC-X5C/UK, DC-X5CT/UK) |
| or | △ 645 036 9803 | CORD,POWER-1.6MK (DC-X5C/UK, DC-X5CT/UK) |
| 54 | △ 614 255 2513 | POWER CORD (DC-077C/XE) |
| or | △ 645 016 9939 | CORD,POWER-1.74MK (DC-077C/XE) |
| 55 | 645 037 3060 | CORE,CLAMP,LINE NOISE |
| 56 | 645 013 6498 | CORE,FERRITE,AC EMC |
| 57 | △ 614 303 7767 | PWB,FIXING, FOR HEADPHONE(N.S.P) |
| 58 | △ 645 036 6239 | MOTOR,FAN DC 0.84W |
| 59 | 614 303 3899 | ASSY,HEAT SINK |
| 60 | 614 278 8240 | MOUNTING,HEAT SINK |
| 61 | 614 278 8233 | MOUNTING,HEAT SINK |
| 62 | 614 291 6568 | MOUNTING,PWB,FOR-REG |

HEADPHONE P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-----------------------------------|
| 71 | 614 302 3364 | ASSY,PWB,HEADPHONE (Only Initial) |
| CN400 | 645 009 0042 | JACK,PHONE D6.43 |
| CN401 | 614 035 4935 | SOCKET,DIP 4P |
| or | 614 237 9776 | SOCKET |
| CN402 | 614 294 0761 | ASSY,WIRE,HEADPHONE-MAIN |
| or | 614 308 1241 | ASSY,WIRE,HEADPHONE-MAIN |
| L4000 | 645 001 4550 | INDUCTOR,10U K |
| or | 645 031 7835 | INDUCTOR,10U K |
| L4010 | 645 001 4550 | INDUCTOR,10U K |
| or | 645 031 7835 | INDUCTOR,10U K |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|------------------------|
| Q6005 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q6006 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q6007 | 405 141 3505 | TR KTA1266-Y |
| or | 405 141 3406 | TR KTA1266-GR |
| or | 405 004 4502 | TR 2SA608-F-NP |
| or | 405 004 5004 | TR 2SA608-G-NP |
| or | 405 006 3909 | TR 2SA952-K |
| or | 405 006 4005 | TR 2SA952-L |
| S6001 | 645 033 7673 | SWITCH,ROTARY(ENCODER) |
| S6002 | 645 033 7680 | SWITCH,ROTARY(ENCODER) |
| S6003 | 645 033 7680 | SWITCH,ROTARY(ENCODER) |
| S6004 | 645 033 7680 | SWITCH,ROTARY(ENCODER) |
| S6091 | 645 035 9224 | SWITCH,PUSH 1P-1T |
| or | 645 000 1383 | SWITCH,PUSH 1P-1TX1 |
| S6101 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6102 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6103 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6104 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6106 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6107 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6109 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6110 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6111 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|----------------------------|
| S6112 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| S6113 | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| TA601 | 614 112 1451 | DOUBLE FACE,FL_MOUNT |
| X6001 | 645 032 1627 | OSC,CRYSTAL 32.768KHZ,XTAL |
| X6002 | 614 215 5561 | RESONATOR,CERAM |
| or | 645 013 7532 | OSC,CERAMIC 4.19MHZ |

MAIN-AMPLIFIER P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|------------------------------|
| 73 | 614 308 6437 | ASSY,PWB,MAIN (Only Initial) |
| C4706 | 403 057 2407 | POLYESTER 0.1U J 50V |
| C4707 | 403 057 2407 | POLYESTER 0.1U J 50V |
| C4806 | 403 057 2407 | POLYESTER 0.1U J 50V |
| C4807 | 403 057 2407 | POLYESTER 0.1U J 50V |
| C4900 | 403 332 7400 | ELECT 2200U M 50V |
| C4901 | 403 332 7400 | ELECT 2200U M 50V |
| C4930 | 403 329 6201 | ELECT 2200U M 35V |
| C4931 | 403 329 6201 | ELECT 2200U M 35V |
| CN470 | 645 033 3088 | TERMINAL |
| CN471 | 645 033 3057 | JACK,RCA |
| CN472 | 645 005 8110 | PLUG,4P |
| or | 645 007 0075 | PLUG,4P |
| CN473 | 645 026 8960 | PLUG,12P |
| CN474 | 645 005 8585 | SOCKET,9P |
| CN490 | 614 020 1246 | SOCKET,5P |
| D4410 | 407 012 4406 | DIODE 1SS133 |
| D4411 | 407 012 4406 | DIODE 1SS133 |
| D4412 | 407 012 4406 | DIODE 1SS133 |
| D4440 | 407 012 4208 | DIODE 1SS131 |
| D4770 | 407 012 4406 | DIODE 1SS133 |
| D4771 | 407 012 4208 | DIODE 1SS131 |
| D4900 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4901 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4902 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4903 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4905 | 407 063 9108 | ZENER DIODE MTZJ6.8B |
| D4906 | 407 063 9108 | ZENER DIODE MTZJ6.8B |
| D4930 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4931 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4932 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4933 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4934 | 407 099 5402 | ZENER DIODE MTZJ6.2B |
| D4935 | 407 099 6805 | ZENER DIODE MTZJ13B |
| D4936 | 407 099 6805 | ZENER DIODE MTZJ13B |
| D4937 | 407 099 4603 | ZENER DIODE MTZJ3.9B |
| D4940 | △ 407 148 6701 | DIODE 1A3-I |
| D4960 | 407 099 6805 | ZENER DIODE MTZJ13B |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION | REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|---------------------------|---------|----------------|-------------------------|
| IC470 | △ 409 435 2403 | IC STK411-290E | or | 405 005 1906 | TR 2SA733-K |
| or | △ 409 448 4609 | IC STK411-220M,POWER AMP | Q4790 | 405 033 6805 | TR 2SD1468S-S |
| or | △ 409 443 8305 | IC STK499-290EN,POWER AMP | or | 405 033 6706 | TR 2SD1468S-R |
| L4700 | 614 202 1712 | V.H.F COIL 1AV4L20B0320N | or | 405 151 4400 | TR KTD1303 |
| or | 614 196 9763 | V.H.F COIL | Q4795 | 405 141 3406 | TR KTA1266-GR |
| L4800 | 614 202 1712 | V.H.F COIL 1AV4L20B0320N | or | 405 141 3505 | TR KTA1266-Y |
| or | 614 196 9763 | V.H.F COIL | or | 405 005 2002 | TR 2SA733-P |
| LG470 | 645 023 8987 | FIXER | or | 405 005 1906 | TR 2SA733-K |
| LG471 | 645 023 8987 | FIXER | Q4800 | 405 033 6805 | TR 2SD1468S-S |
| Q4410 | 405 141 3208 | TR KTC3198-Y | or | 405 033 6706 | TR 2SD1468S-R |
| or | 405 143 8706 | TR KTC3199-GR | or | 405 151 4400 | TR KTD1303 |
| or | 405 011 8609 | TR 2SC1740S-S | Q4890 | 405 033 6805 | TR 2SD1468S-S |
| or | 405 011 8500 | TR 2SC1740S-R | or | 405 033 6706 | TR 2SD1468S-R |
| Q4420 | 405 141 3208 | TR KTC3198-Y | or | 405 151 4400 | TR KTD1303 |
| or | 405 143 8706 | TR KTC3199-GR | Q4930 | △ 405 001 9302 | TR 2SA1020-Y |
| or | 405 011 8609 | TR 2SC1740S-S | Q4931 | 405 141 3406 | TR KTA1266-GR |
| or | 405 011 8500 | TR 2SC1740S-R | or | 405 141 3505 | TR KTA1266-Y |
| Q4421 | 405 141 3208 | TR KTC3198-Y | or | 405 005 2002 | TR 2SA733-P |
| or | 405 143 8706 | TR KTC3199-GR | or | 405 005 1906 | TR 2SA733-K |
| or | 405 011 8609 | TR 2SC1740S-S | Q4932 | △ 405 095 1602 | TR 2SD2061-E |
| or | 405 011 8500 | TR 2SC1740S-R | or | △ 405 095 1701 | TR 2SD2061-F |
| Q4430 | 405 141 3208 | TR KTC3198-Y | or | △ 405 138 6403 | TR KTD2058Y |
| or | 405 143 8706 | TR KTC3199-GR | Q4933 | 405 141 3208 | TR KTC3198-Y |
| or | 405 011 8609 | TR 2SC1740S-S | or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8500 | TR 2SC1740S-R | or | 405 011 8609 | TR 2SC1740S-S |
| Q4431 | 405 141 3208 | TR KTC3198-Y | or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 143 8706 | TR KTC3199-GR | Q4934 | 405 141 3208 | TR KTC3198-Y |
| or | 405 011 8609 | TR 2SC1740S-S | or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8500 | TR 2SC1740S-R | or | 405 011 8609 | TR 2SC1740S-S |
| Q4435 | 405 141 3406 | TR KTA1266-GR | or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 141 3505 | TR KTA1266-Y | Q4935 | △ 405 095 1602 | TR 2SD2061-E |
| or | 405 005 2002 | TR 2SA733-P | or | △ 405 095 1701 | TR 2SD2061-F |
| or | 405 005 1906 | TR 2SA733-K | or | △ 405 138 6403 | TR KTD2058Y |
| Q4436 | 405 141 3208 | TR KTC3198-Y | Q4960 | △ 405 095 1602 | TR 2SD2061-E |
| or | 405 143 8706 | TR KTC3199-GR | or | △ 405 095 1701 | TR 2SD2061-F |
| or | 405 011 8609 | TR 2SC1740S-S | or | △ 405 138 6403 | TR KTD2058Y |
| or | 405 011 8500 | TR 2SC1740S-R | Q4961 | 405 141 3208 | TR KTC3198-Y |
| Q4437 | 405 141 3208 | TR KTC3198-Y | or | 405 143 8706 | TR KTC3199-GR |
| or | 405 143 8706 | TR KTC3199-GR | or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8609 | TR 2SC1740S-S | or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8500 | TR 2SC1740S-R | Q4962 | 405 141 3208 | TR KTC3198-Y |
| Q4438 | 405 141 3208 | TR KTC3198-Y | or | 405 143 8706 | TR KTC3199-GR |
| or | 405 143 8706 | TR KTC3199-GR | or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8609 | TR 2SC1740S-S | or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8500 | TR 2SC1740S-R | R4430 | △ 614 242 0126 | RESISTOR 0.22 K- 3W |
| Q4441 | 405 141 3208 | TR KTC3198-Y | R4431 | △ 614 242 0126 | RESISTOR 0.22 K- 3W |
| or | 405 143 8706 | TR KTC3199-GR | R4706 | △ 402 081 0403 | RESISTOR 4.7 J- 2W |
| or | 405 011 8609 | TR 2SC1740S-S | R4707 | △ 402 081 0403 | RESISTOR 4.7 J- 2W |
| or | 405 011 8500 | TR 2SC1740S-R | R4790 | △ 402 081 0700 | RESISTOR 330 J- 2W |
| Q4700 | 405 033 6805 | TR 2SD1468S-S | R4806 | △ 402 081 0403 | RESISTOR 4.7 J- 2W |
| or | 405 033 6706 | TR 2SD1468S-R | R4807 | △ 402 081 0403 | RESISTOR 4.7 J- 2W |
| or | 405 151 4400 | TR KTD1303 | R4890 | △ 402 081 0700 | RESISTOR 330 J- 2W |
| Q4751 | 405 141 3406 | TR KTA1266-GR | R4902 | △ 402 081 1103 | FUSIBLE RES 100 JA 1/4W |
| or | 405 141 3505 | TR KTA1266-Y | R4903 | △ 402 081 1103 | FUSIBLE RES 100 JA 1/4W |
| or | 405 005 2002 | TR 2SA733-P | R4930 | △ 402 083 3006 | RESISTOR 47 J- 2W |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|------------------------|
| R4931 | △ 402 081 1004 | FUSIBLE RES 10 JA 1/4W |
| R4938 | △ 402 082 5209 | RESISTOR 1 J- 1/2W |
| R4962 | △ 402 082 5209 | RESISTOR 1 J- 1/2W |
| RY441 | 614 224 4531 | RELAY |
| or | 645 035 6582 | RELAY |

PRE-AMPLIFIER, P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|------------------------------------|
| 74 | 614 308 6444 | ASSY,PWB,PREAMP (Only Initial) |
| C4581 | 403 184 9805 | MT-POLYEST 0.22U J 50V |
| or | 403 067 6709 | MT-COMPO 0.22U J 50V |
| C4582 | 403 184 9805 | MT-POLYEST 0.22U J 50V |
| or | 403 067 6709 | MT-COMPO 0.22U J 50V |
| C4681 | 403 184 9805 | MT-POLYEST 0.22U J 50V |
| or | 403 067 6709 | MT-COMPO 0.22U J 50V |
| C4682 | 403 184 9805 | MT-POLYEST 0.22U J 50V |
| or | 403 067 6709 | MT-COMPO 0.22U J 50V |
| CN450 | 645 012 6369 | JACK,RCA-2 |
| CN451 | 614 239 5455 | SOCKET |
| CN452 | 645 033 7826 | PLUG,11P |
| CN453 | 645 012 5300 | SOCKET,FPC 26P |
| CN454 | 645 026 8977 | SOCKET,12P |
| CN455 | 645 005 8363 | PLUG,9P |
| CN456 | 614 035 4928 | SOCKET,DIP 3P |
| or | 614 237 9769 | SOCKET |
| CN457 | 614 297 6395 | CORD,3P CONNECTOR, PREAMP-SUBPT |
| or | 614 304 8794 | CORD,3P CONNECTOR, PREAMP-SUBPT |
| CN458 | 645 004 2881 | PLUG,2P |
| CN459 | 645 005 9292 | PLUG,5P |
| or | 645 007 0082 | PLUG,5P |
| CN460 | 645 040 3026 | PLUG,9P |
| D4300 | △ 407 148 6701 | DIODE 1A3-I |
| D4301 | 407 012 4406 | DIODE 1SS133 |
| D4302 | 407 012 4406 | DIODE 1SS133 |
| D4303 | 407 012 4406 | DIODE 1SS133 |
| D4305 | △ 407 148 6701 | DIODE 1A3-I |
| D4471 | 407 012 4406 | DIODE 1SS133 |
| D4472 | 407 099 4603 | ZENER DIODE MTJ3.9B |
| IC458 | 409 474 6103 | IC LC75342M |
| LG450 | 645 023 8987 | FIXER |
| LG451 | 645 023 8987 | FIXER |
| Q4300 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| Q4470 | 405 141 3406 | TR KTA1266-GR |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 005 2002 | TR 2SA733-P |
| or | 405 005 1906 | TR 2SA733-K |
| Q4471 | 405 141 3406 | TR KTA1266-GR |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 005 2002 | TR 2SA733-P |
| or | 405 005 1906 | TR 2SA733-K |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|---------------------|
| Q4480 | △ 405 023 5306 | TR 2SD400-F-MP |
| Q4481 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| Q4482 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| Q4575 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| Q4576 | 405 141 3406 | TR KTA1266-GR |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 005 2002 | TR 2SA733-P |
| or | 405 005 1906 | TR 2SA733-K |
| Q4577 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| R4482 | △ 402 083 3808 | RESISTOR 33 J- 1/2W |
| T4500 | 614 239 1839 | TERMINAL |

PRE-AMPLIFIER 2 P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------------|
| 75 | 614 309 6535 | ASSY,PWB,PREAMP2 (Only Initial) |
| CN410 | 645 040 3033 | SOCKET,9P |
| CN419 | 645 006 0908 | PLUG,2P |
| or | 645 009 6426 | PLUG,2P |
| IC410 | 409 426 1804 | IC KIA4558S |
| IC415 | 409 467 0101 | IC LA2615 |
| Q4100 | 405 073 6407 | TR 2SK772-E |
| Q4101 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| Q4200 | 405 073 6407 | TR 2SK772-E |
| Q4201 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |

SUB POWER TRANSFORMER P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|--------------------------------|
| 76 | 614 308 6475 | ASSY,PWB,SUB PT (Only Initial) |
| C4974 | △ 403 349 3303 | CERAMIC 0.01U M 250V |
| or | △ 404 000 1607 | CERAMIC 0.01U F 400V |
| C4975 | 403 313 4602 | ELECT 1000U M 16V |
| CN440 | 645 005 7373 | PLUG,3P |
| or | 645 007 0068 | PLUG,3P |
| D4400 | 407 012 4406 | DIODE 1SS133 |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|----------------------|
| D4401 | 407 099 5402 | ZENER DIODE MTZJ6.2B |
| D4970 | △ 407 148 6701 | DIODE 1A3-I |
| D4971 | △ 407 148 6701 | DIODE 1A3-I |
| D4972 | △ 407 148 6701 | DIODE 1A3-I |
| D4973 | △ 407 148 6701 | DIODE 1A3-I |
| FPC01 | 645 006 4760 | HOLDER,FUSE |
| or | 645 031 7903 | HOLDER,FUSE |
| FPC02 | 645 006 4760 | HOLDER,FUSE |
| or | 645 031 7903 | HOLDER,FUSE |
| L4970 | △ 645 038 7364 | INDUCTOR,70U |
| PT497 | △ 645 033 8595 | TRANS,POWER |
| Q4400 | 405 141 3208 | TR KTC3198-Y |
| or | 405 143 8706 | TR KTC3199-GR |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| Q4401 | △ 405 023 5306 | TR 2SD400-F-MP |
| RY440 | △ 645 030 5597 | RELAY |
| or | △ 645 035 6575 | RELAY |
| WR435 | 614 017 8203 | TERMINAL BOARD |
| WR436 | 614 017 8203 | TERMINAL BOARD |

TUNER P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------------|
| 77 | 614 305 0322 | ASSY,PWB,TUNER (Only Initial) |
| C2457 | 403 259 0508 | NP-ELECT 1U M 50V |
| CN201 | 614 255 5750 | TERMINAL |
| or | 645 032 6394 | TERMINAL |
| CN241 | 645 033 7833 | SOCKET,11P |
| CN251 | 614 239 1839 | TERMINAL |
| D2151 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| D2451 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| D2452 | 407 153 7502 | ZENER DIODE GZS3.0B |
| D2466 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| D2467 | 407 069 4404 | DIODE GMA01U |
| or | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| or | 407 153 6109 | DIODE 1SS119-041 |
| IC231 | 409 379 2705 | IC LA1832ML |
| IC241 | 409 439 4502 | IC LC72121M-D |
| IC251 | 409 415 8609 | IC LC72720N |
| L2151 | 645 023 0127 | TUNER |
| L2451 | 645 001 4581 | INDUCTOR,100U K |
| or | 645 031 7842 | INDUCTOR,100U K |
| L2501 | 645 001 4581 | INDUCTOR,100U K |
| or | 645 031 7842 | INDUCTOR,100U K |
| L2502 | 645 001 4581 | INDUCTOR,100U K |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------|
| or | 645 031 7842 | INDUCTOR,100U K |
| Q2140 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q2201 | 405 151 4202 | TR KTC3193-O |
| or | 405 151 4103 | TR KTC3193-Y |
| or | 405 016 0806 | TR 2SC2839-E |
| Q2310 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q2451 | 405 151 5209 | TR KRA107M |
| or | 405 000 0904 | TR DTA114YS |
| or | 405 078 2404 | TR BN1A4P |
| or | 405 036 3702 | TR 2SA1564 |
| Q2501 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q2502 | 405 151 5209 | TR KRA107M |
| or | 405 000 0904 | TR DTA114YS |
| or | 405 078 2404 | TR BN1A4P |
| or | 405 036 3702 | TR 2SA1564 |
| Q2701 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| Q2801 | 405 143 8706 | TR KTC3199-GR |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 017 9709 | TR 2SC3330-U |
| or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| T2301 | 645 038 3687 | FILTER,LP 75KHZ |
| U2101 | 645 033 5327 | TUNER,FM |
| X2301 | 645 010 0024 | OSC,CERAMIC 456KHZ |
| or | 614 246 0870 | RESONATOR |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------|
| X2451 | 645 023 4965 | OSC,CRYSTAL 7.2MHZ |
| X2501 | 645 035 8326 | OSC,CRYSTAL 4.332MHZ |
| XF221 | 614 240 2917 | FILTER,CERAM |
| or | 645 010 0079 | CERAMIC FILTER 10.70MHZ |
| or | 614 254 3214 | FILTER |
| XF222 | 614 240 2917 | FILTER,CERAM |
| or | 645 010 0079 | CERAMIC FILTER 10.70MHZ |
| or | 614 254 3214 | FILTER |
| XF231 | 614 246 0849 | FILTER |
| XF233 | 645 018 8824 | DISCR,CERAMIC |
| or | 645 018 8718 | DISCR,CERAMIC |

SPEAKER(SX-X5L,R/UK, SX-077L,R/XE)

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|--|
| | 614 310 3806 | ASSY,BOX,SPEAKER, LEFT (DC-X5C/UK, DC-X5CT/UK) |
| | 614 310 3783 | ASSY,BOX,SPEAKER, LEFT (DC-077/XE,DC-077C/XE) |
| | 614 310 3813 | ASSY,BOX,SPEAKER, RIGHT (DC-X5C/UK, DC-X5CT/UK) |
| | 614 310 3790 | ASSY,BOX,SPEAKER, RIGHT (DC-077/XE,DC-077C/XE) |
| | 614 304 5281 | ASSY,GRILLE |

POWER TRANSFORMER, PRIMARY P.W.BOARD ASSY

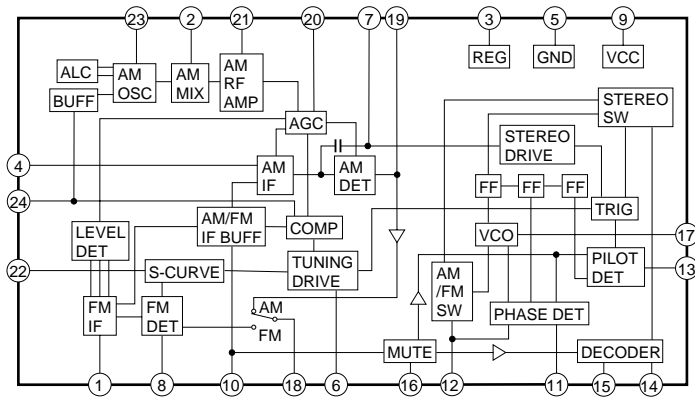
| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-----------------------------|
| 78 | 614 308 6451 | ASSY,PWB,PT1 (Only Initial) |

POWER TRANSFORMER, SECONDARY P.W.BOARD ASSY

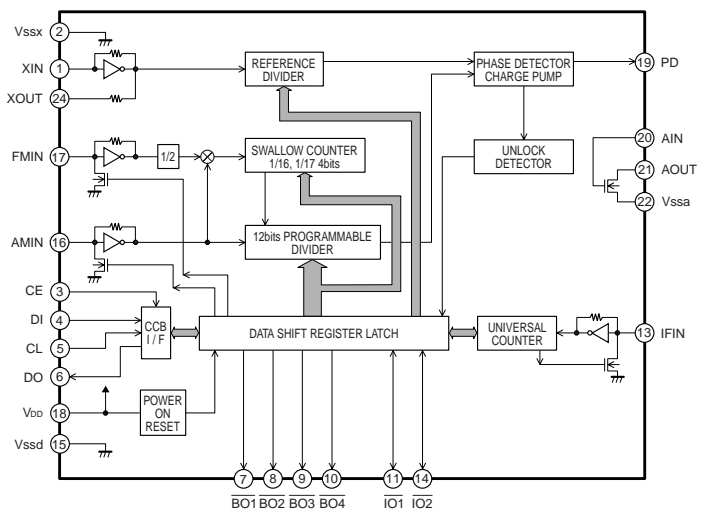
| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|-----------------------------|
| 79 | 614 308 6468 | ASSY,PWB,PT2 (Only Initial) |
| CN900 | 614 020 1246 | SOCKET,5P |
| CN901 | 614 035 4942 | SOCKET,DIP 5P |
| or | 614 237 9783 | SOCKET |
| CN903 | 614 289 3906 | ASSY,WIRE,PT2-PREAMP |
| or | 614 313 5920 | ASSY,WIRE,PT2-PREAMP |
| D4950 | 407 012 4208 | DIODE 1SS131 |
| D4951 | 407 012 4208 | DIODE 1SS131 |
| D4952 | 407 099 9905 | ZENER DIODE MTZJ33B |
| D4953 | 407 099 5204 | ZENER DIODE MTZJ5.1B |
| D4954 | 407 012 4208 | DIODE 1SS131 |
| D4955 | 407 012 4208 | DIODE 1SS131 |
| PR495 | △ 645 027 4169 | PROTECTOR,0.125A 125V |
| or | △ 645 042 2584 | PROTECTOR,0.125A 125V |
| PR900 | △ 645 025 5137 | PROTECTOR,7A 125V |
| or | △ 645 042 2737 | PROTECTOR,7A 125V |
| PR901 | △ 645 025 5137 | PROTECTOR,7A 125V |
| or | △ 645 042 2737 | PROTECTOR,7A 125V |
| PR902 | △ 645 025 5137 | PROTECTOR,7A 125V |
| or | △ 645 042 2737 | PROTECTOR,7A 125V |
| Q4950 | △ 405 001 9302 | TR 2SA1020-Y |
| R4954 | △ 402 081 0106 | FUSIBLE RES 2.2 JA 1/4W |

IC BLOCK DIAGRAM & DESCRIPTION

IC231 LA1832ML (AM/FM IF Amplifier & FM-MPX)

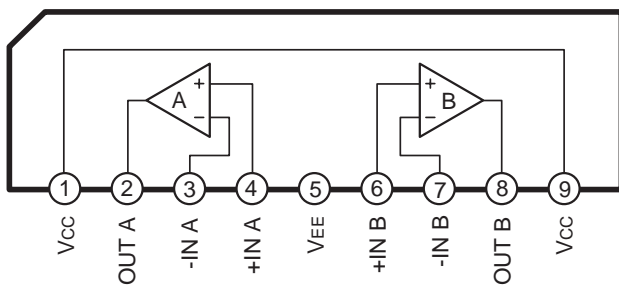


IC241 LC72121M (PLL Synthesizer)



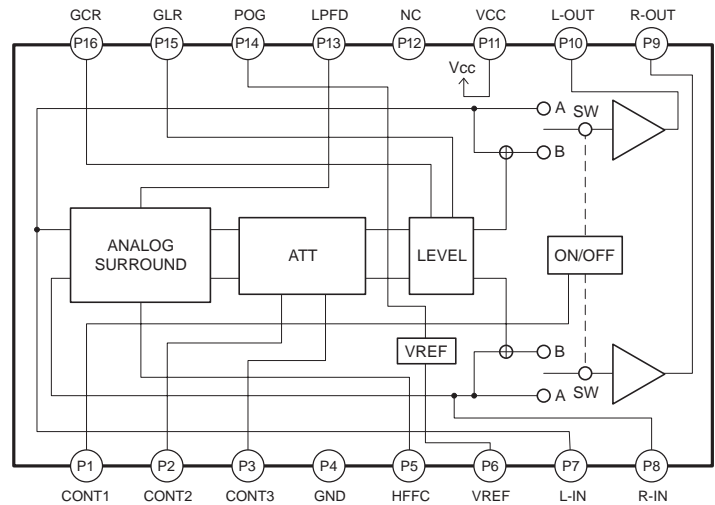
IC410 KIA4558S

(Dual Low Noise Operational Amplifier)



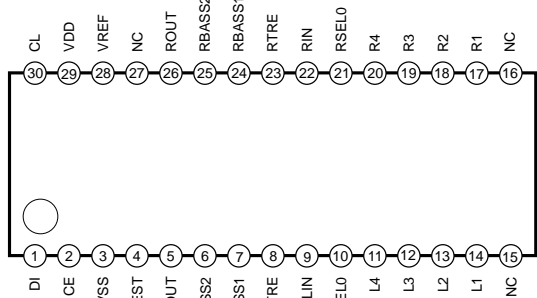
IC415 LA2615

(Surround Signal Processor)

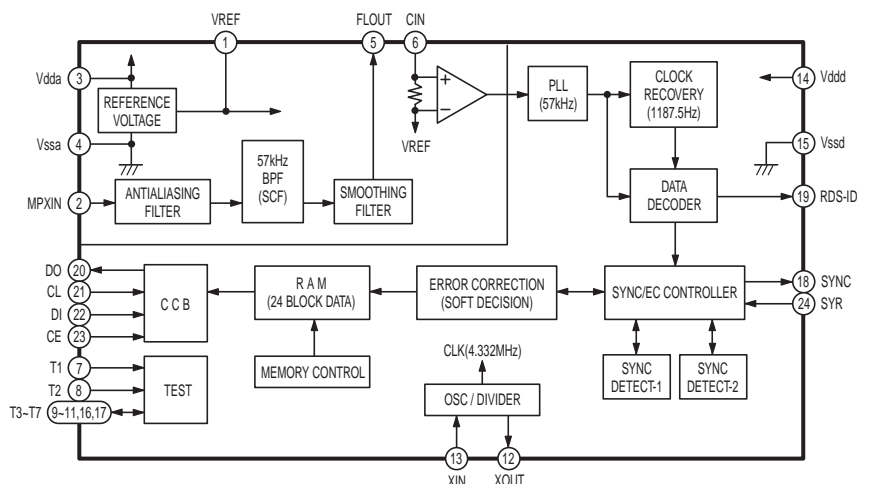


IC458LC75342M

(Electronically Controllable electronic Volume)

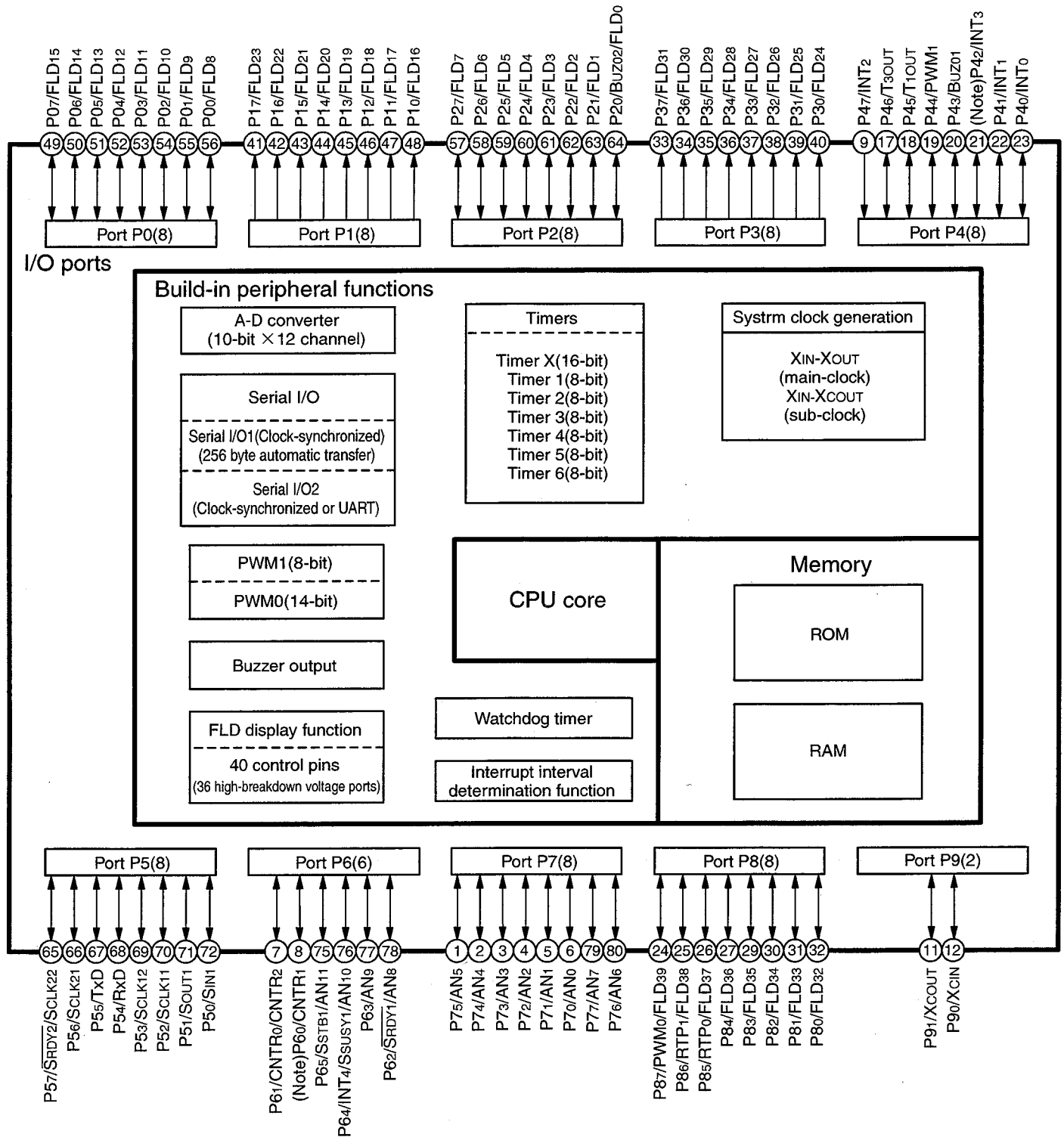


IC251 LC72720N (RDS Signal Processor)



IC BLOCK DIAGRAM & DESCRIPTION

IC601 M38B57MCH-A259FP (8-bit Microcomputer)



IC BLOCK DIAGRAM & DESCRIPTION

IC601 M38B57MCH-A259FP (8-bit Microcomputer)

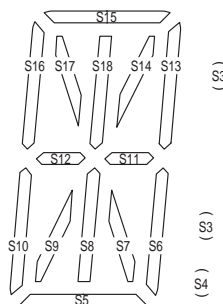
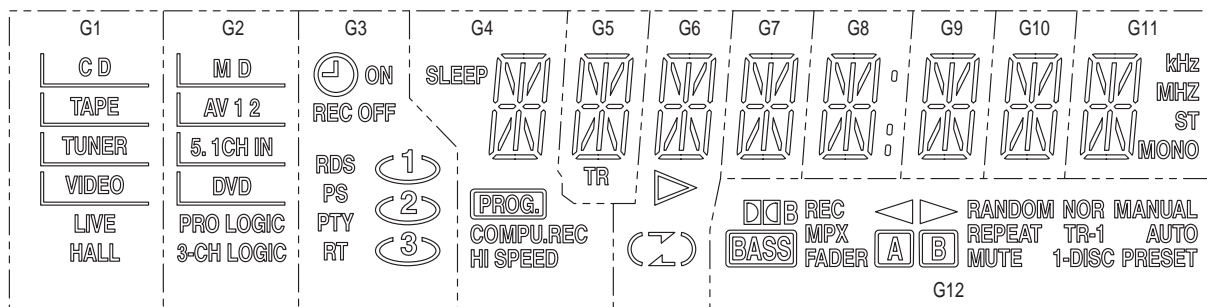
| No. | Pin Name | I/O | Function |
|-----|-----------------|-----|---|
| 1 | P75/AN05 | I | Volume |
| 2 | P74/AN04 | I | Volume |
| 3 | P73/AN03 | AD | |
| 4 | P72/AN02 | AD | |
| 5 | P71/AN01 | I | Protect |
| 6 | P70/AN00 | O | Function control |
| 7 | P61/CNTR0/CNTR2 | O | Power control |
| 8 | P60/CNTR1 | O | Clock shift control output(bc-A=Low) |
| 9 | P47/INT2 | I | Power failure detection (Power Failure=L)/Micon power check(Down=L) |
| 10 | RESET | | System reset terminal |
| 11 | P91/Xcout | | Sub clock oscillating terminal |
| 12 | P90/Xcin | | Sub clock oscillating terminal |
| 13 | Vss | | Ground potential terminal |
| 14 | Xin | | Main clock oscillating ceramic terminal |
| 15 | Xout | | Main clock oscillating ceramic terminal |
| 16 | Vcc | | Plus power terminal |
| 17 | P46/T3out | | Ground control output for micon power check |
| 18 | P45/T1out | O | Mute Output(ON=H) |
| 19 | P44/PWM1 | O | Pull up control (ON=L) |
| 20 | P43/Buz01 | I | Option Select in |
| 21 | P42/INT3 | I | Remote control input |
| 22 | P41/INT1 | I | RDS data input |
| 23 | P40/INT0 | I/O | Serial synchro input /output |
| 24 | P87/PWM0/FLD39 | I | TU PLL DO |
| 25 | P86/RTP1/FLD38 | O | TU PLL /RDS CLK |
| 26 | P85/RTPO/FLD37 | O | TU PLL /RDS DATA |
| 27 | P84/FLD36 | O | TU PLL /RDS CE |
| 28 | Vee | | FL Minus power terminal |
| 29 | P83/FLD35 | O | FL digit output(Pull Down R) SEL_12/24 |
| 30 | P82/FLD34 | O | FL digit output(Pull Down R) SEL_RDS |
| 31 | P81/FLD33 | O | FL digit output(Pull Down R) SEL_RDSE |
| 32 | P80/FLD32 | O | FL digit output(Pull Down R) SEL_10KEY |
| 33 | P37/FLD31 | O | FL digit output SEL_FUNC |
| 34 | P36/FLD30 | O | FL digit output SEL_ECO |
| 35 | P35/FLD29 | O | FL digit output SEL_DPS |
| 36 | P34/FLD28 | O | FL digit output SEL_DIM |
| 37 | P33/FLD27 | O | FL digit output SEL_FUNC2 |
| 38 | P32/FLD26 | O | FL digit output SEL_DISP |
| 39 | P31/FLD25 | O | FL digit output SEL_FUNC3 |

| No. | Pin Name | I/O | Function |
|-----|----------------------|-----|-------------------------------------|
| 40 | P30/FLD24 | O | FL digit output |
| 41 | P17/FLD23 | O | FL segment output |
| 42 | P16/FLD22 | O | FL segment output |
| 43 | P15/FLD21 | O | FL segment output |
| 44 | P14/FLD20 | O | FL segment output |
| 45 | P13/FLD19 | O | FL segment output |
| 46 | P12/FLD18 | O | FL segment output |
| 47 | P11/FLD17 | O | FL segment output |
| 48 | P10/FLD16 | O | FL segment output |
| 49 | P07/FLD15 | O | FL segment output |
| 50 | P06/FLD14 | O | FL segment output |
| 51 | P05/FLD13 | O | FL segment output |
| 52 | P04/FLD12 | O | FL segment output |
| 53 | P03/FLD11 | O | FL segment output |
| 54 | P02/FLD10 | O | FL segment output |
| 55 | P01/FLD09 | O | FL segment output |
| 56 | P00/FLD08 | O | FL segment output |
| 57 | P27/FLD07 | O | FL segment output (Pull Down R) |
| 58 | P26/FLD06 | O | FL segment output (Pull Down R) |
| 59 | P25/FLD05 | I | MULTI |
| 60 | P24/FLD04 | I | MULTI |
| 61 | P23/FLD03 | I | BASS |
| 62 | P22/FLD02 | I | BASS |
| 63 | P21/FLD01 | I | TREBLE |
| 64 | P20/Buz02/FLD00 | I | TREBLE |
| 65 | P57/Srdy2/ScIk22 | I/O | Serial chip enable input/output |
| 66 | P56/ScIk21 | I/O | Serial clock input/output |
| 67 | P55/Txd | Out | Serial DATA output |
| 68 | P54/Rxd | In | Serial DATA input |
| 69 | P53/ScIk12 | I | Headphone switch |
| 70 | P52/ScIk11 | O | Bass control output (ON="H") |
| 71 | P51/Sout1 | O | Front speaker relay control(H=ON) |
| 72 | P50/Sin1 | O | Power control(Power ON=H) |
| 73 | Avss | | A/D ground potential terminal |
| 74 | VREF | | A/D standard sub potential terminal |
| 75 | P65/Sstb1/AN11 | O | |
| 76 | P64/INT4/Sbusy1/AN10 | O | |
| 77 | P63/AN09 | O | LC75385NE CE |
| 78 | P62/AN08 | O | 3D surround control output |
| 79 | P77/AN07 | O | 3D surround control output |
| 80 | P76/AN06 | O | NC |

FL DISPLAY DESCRIPTION

TYPE : CM1841M

ANODE & GRID ASSIGNMENT



ANODE & GRID ASSIGNMENT

| | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 |
|-----|---------|------------|-----|-----------|-----|-----|-----|-----|-----|-----|------|--------|
| S1 | CD | MD | ON | SLEEP | | | | | | | MONO | PRESET |
| S2 | (CD) | (MD) | | HI SPEED | | | | | | | ST | 1-DISC |
| S3 | TAPE | (AV1) 2 | REC | COMPU.REC | | | | S3 | | | MHz | MUTE |
| S4 | | | | PROG. | TR | | | S4 | | | KHz | FADER |
| S5 | | | | S5 | S5 | S5 | S5 | S5 | S5 | S5 | S5 | DDB |
| S6 | | | (3) | S6 | S6 | S6 | S6 | S6 | S6 | S6 | S6 | REC |
| S7 | | | RT | S7 | S7 | S7 | S7 | S7 | S7 | S7 | S7 | (BASS) |
| S8 | | | 3 | S8 | S8 | S8 | S8 | S8 | S8 | S8 | S8 | MPX |
| S9 | | | PTY | S9 | S9 | S9 | S9 | S9 | S9 | S9 | S9 | NOR |
| S10 | | 3-CH LOGIC | (2) | S10 | S10 | S10 | S10 | S10 | S10 | S10 | S10 | RANDOM |
| S11 | | PRO LOGIC | PS | S11 | S11 | S11 | S11 | S11 | S11 | S11 | S11 | |
| S12 | HALL | (DVD) | 2 | S12 | S12 | S12 | S12 | S12 | S12 | S12 | S12 | MANUAL |
| S13 | LIVE | DVD | RDS | S13 | S13 | S13 | S13 | S13 | S13 | S13 | S13 | |
| S14 | (VIDEO) | (5.1CH IN) | (1) | S14 | S14 | S14 | S14 | S14 | S14 | S14 | S14 | A |
| S15 | (TAPE) | (AV) 1 (2) | OFF | S15 | S15 | S15 | S15 | S15 | S15 | S15 | S15 | AUTO |
| S16 | TUNER | AV (12) | | S16 | S16 | S16 | S16 | S16 | S16 | S16 | S16 | TR-1 |
| S17 | (TUNER) | (AV12) | 1 | S17 | S17 | S17 | S17 | S17 | S17 | S17 | S17 | REPEAT |
| S18 | VIDEO | 5.1CH IN | | S18 | S18 | S18 | S18 | S18 | S18 | S18 | S18 | B |

PIN ASSIGNMENT

| Pin No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| Assignment | F1 | F1 | NP | NL | S18 | S17 | S16 | S15 | S14 | S13 | S12 | S11 | S10 | S9 | S8 | S7 | S6 | S5 | S4 | S3 |

| Pin No. | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|----|----|----|----|
| Assignment | S2 | S1 | NL | NL | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | NL | NP | F2 | F2 |

F1,F2:Filament

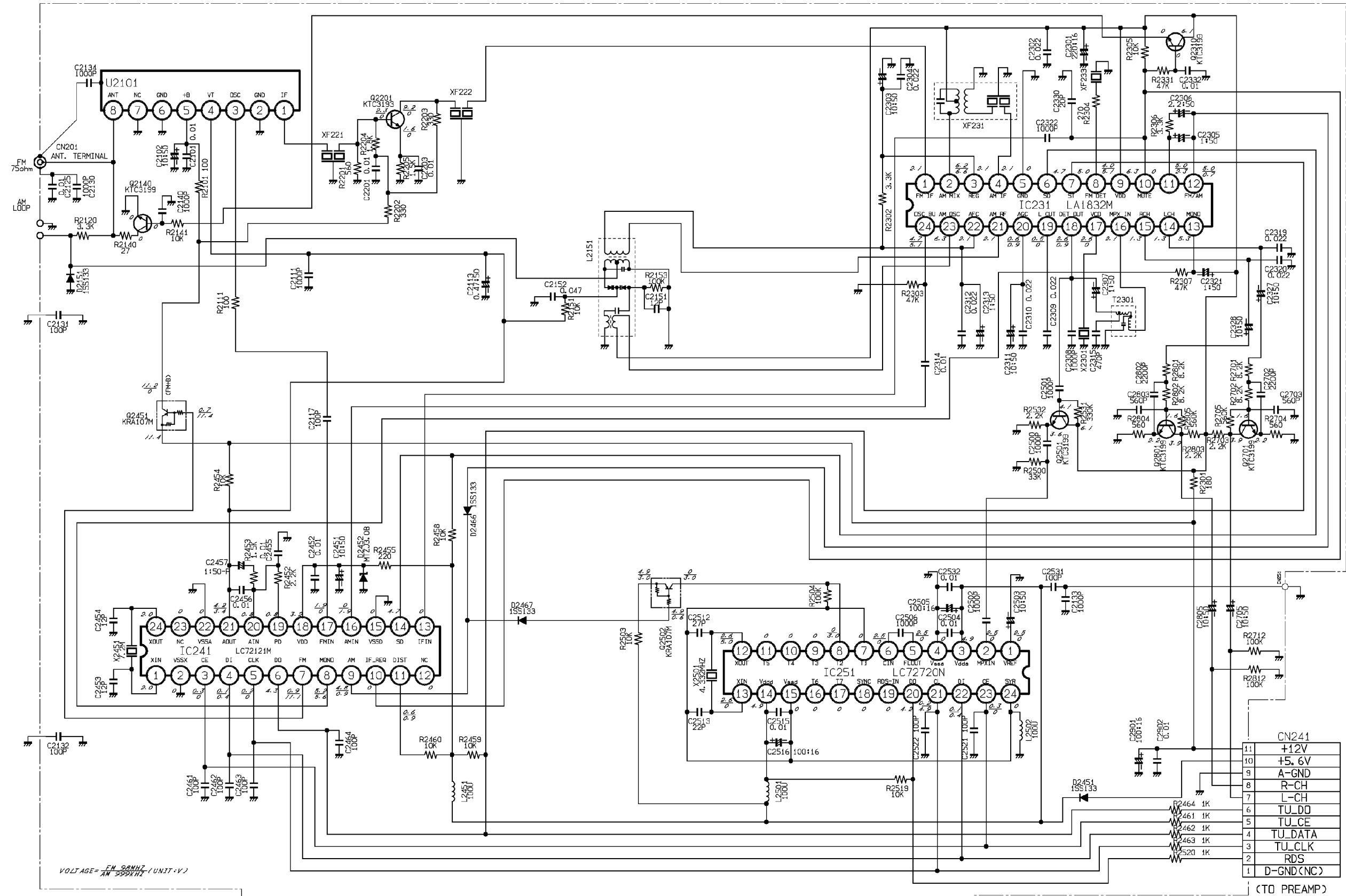
G1~G12:Grid

S1~S18:Anode

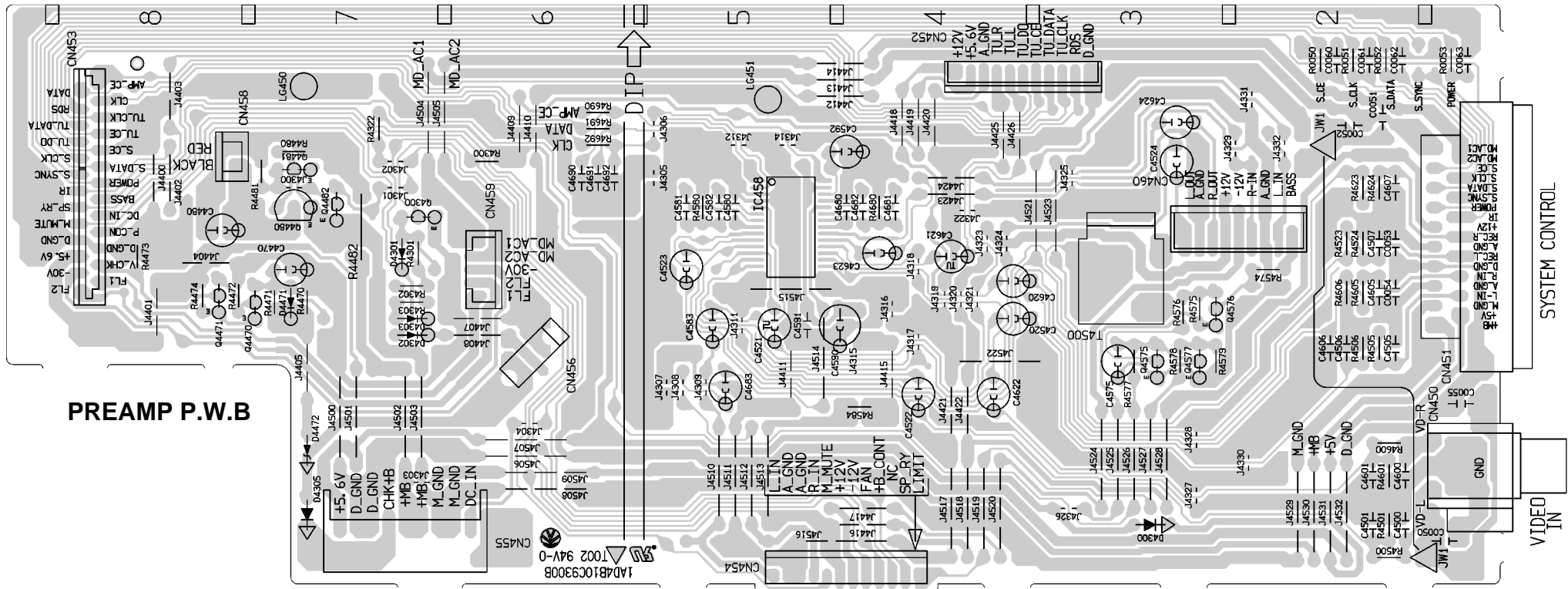
NP:No Pin

NL:No Lead

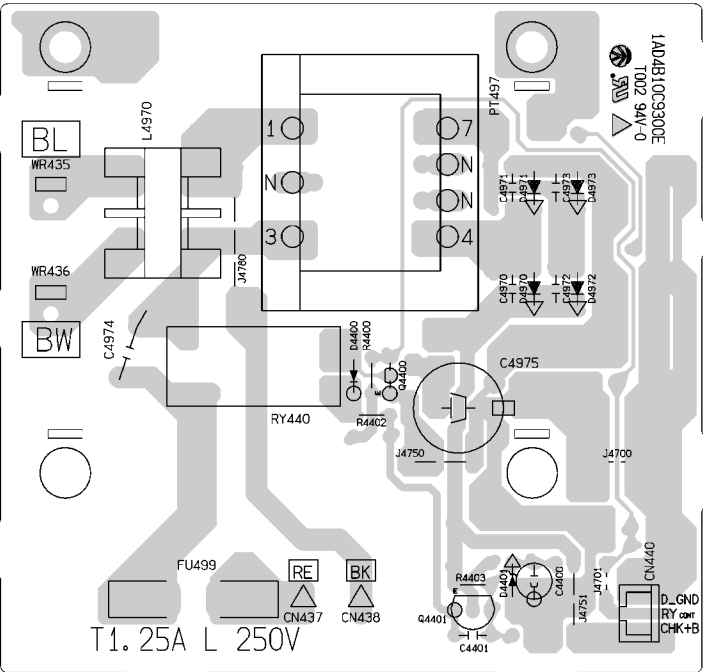
SCHEMATIC DIAGRAM (TUNER) _____



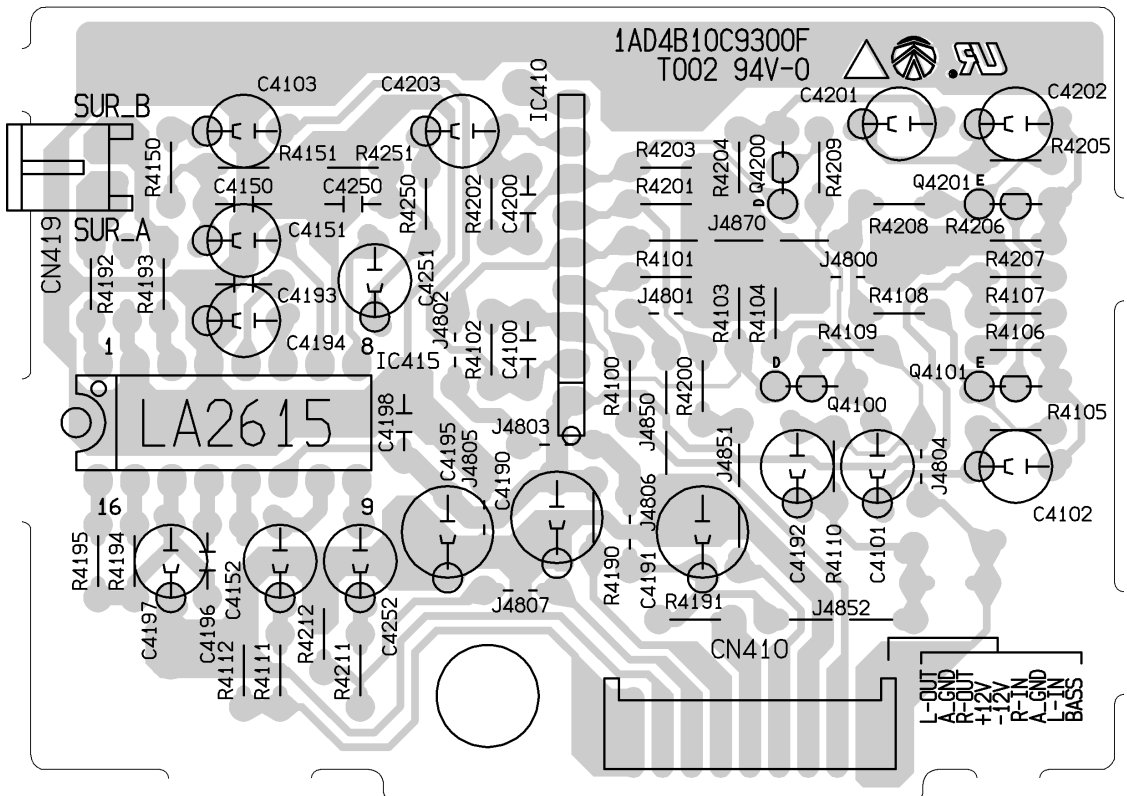
This is a basic schematic diagram.



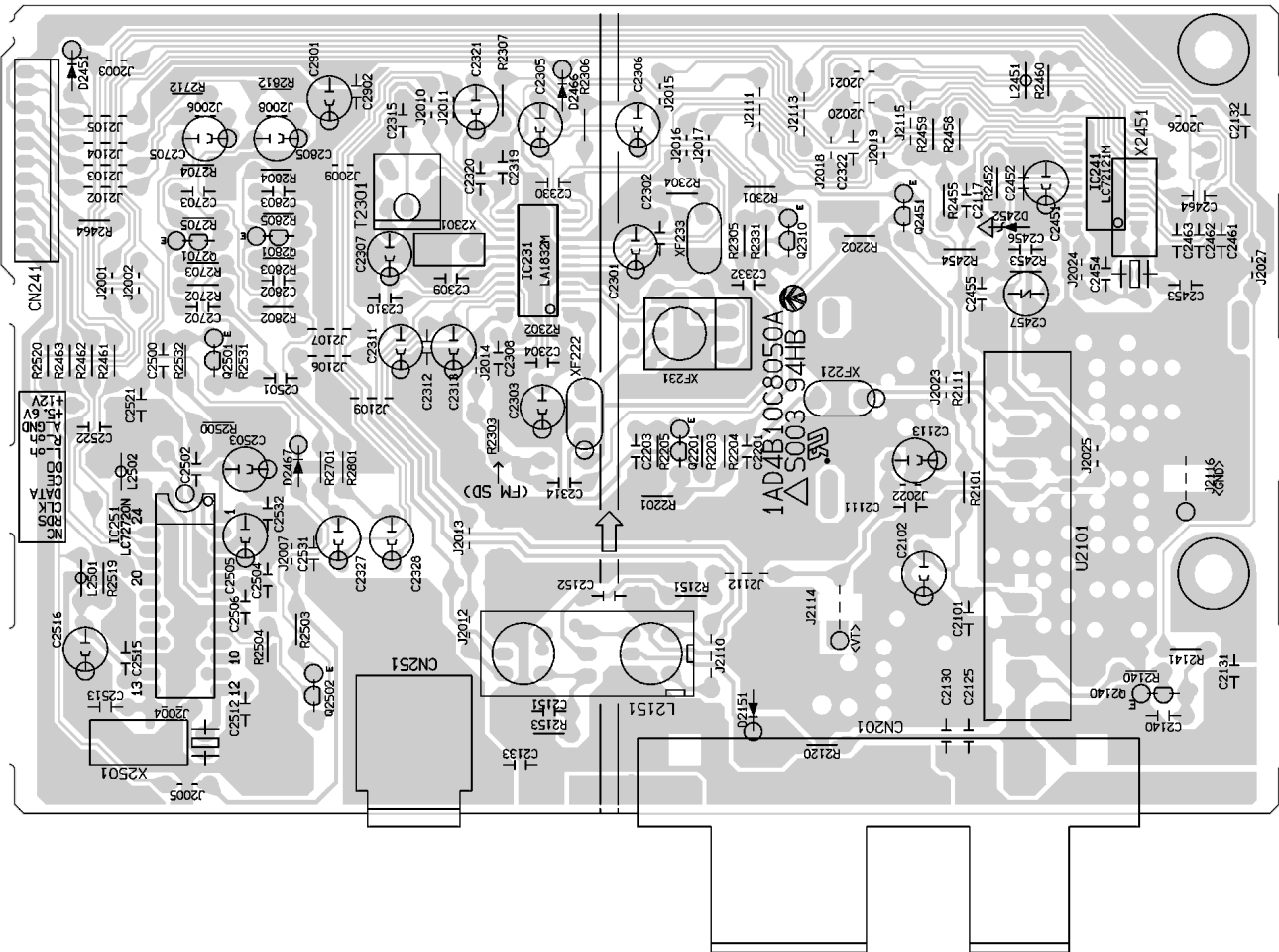
SUB POWER TRANSFORMER P.W.B



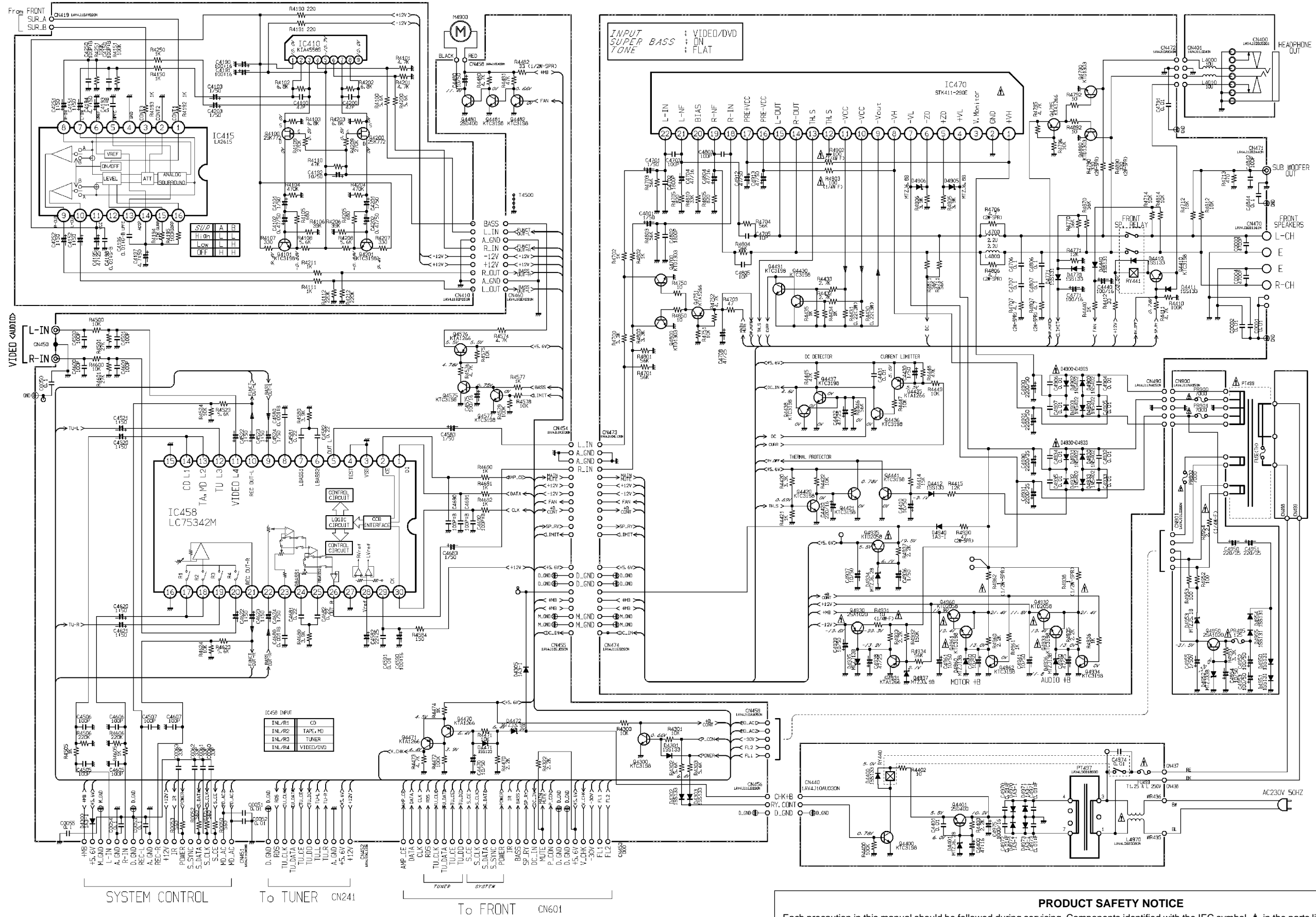
PREAMP 2 P.W.B



TUNER P.W.B





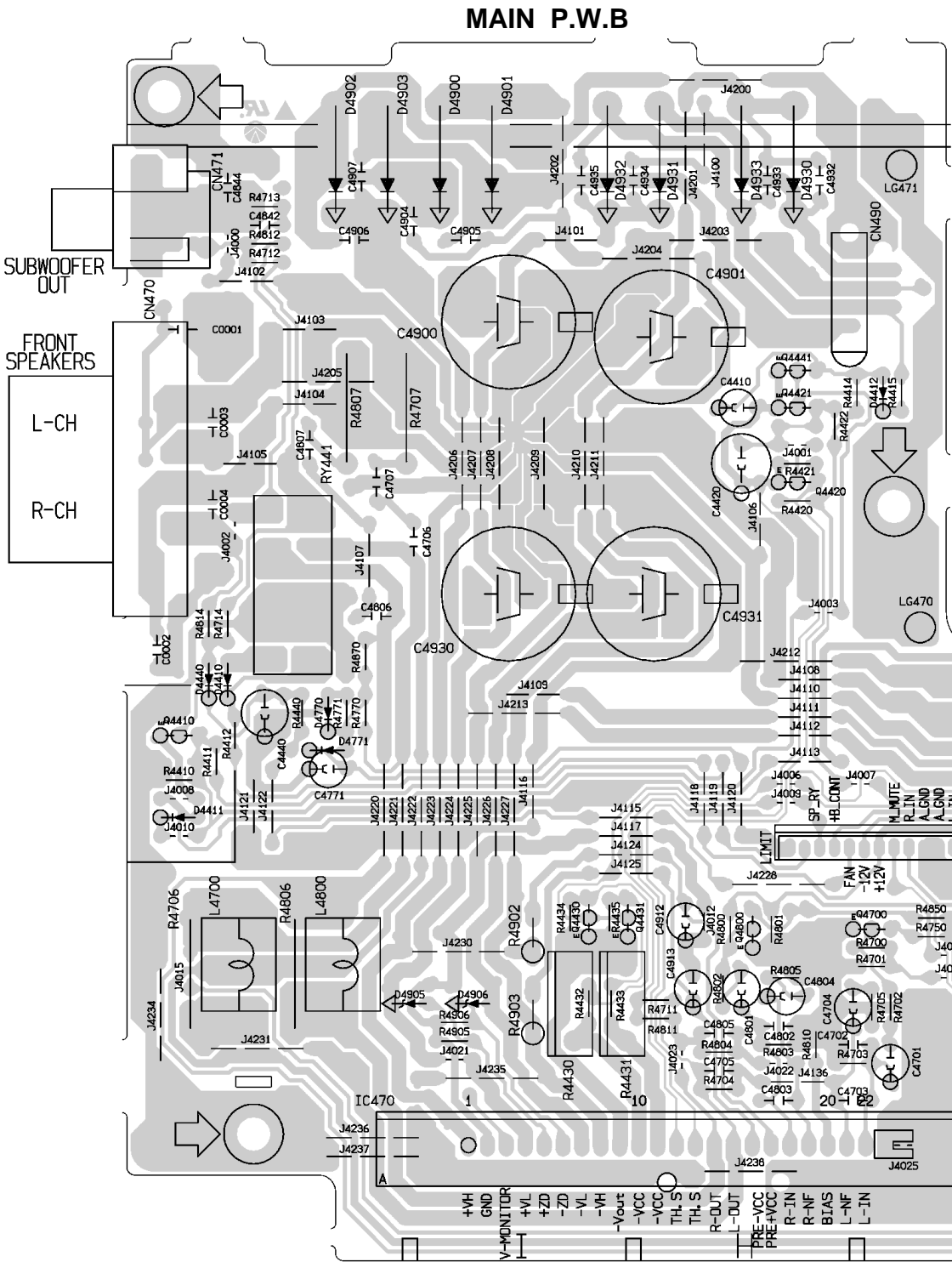
SCHEMATIC DIAGRAM (PRE-AMPLIFIER & MAIN)



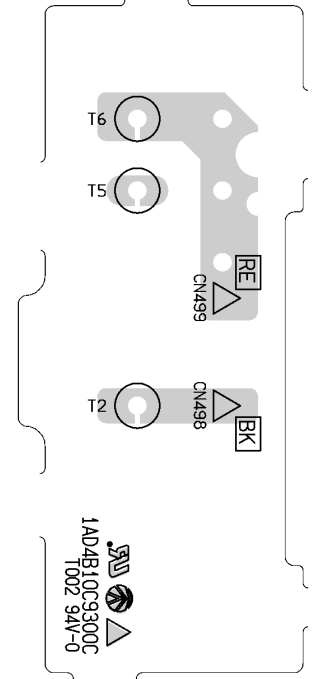
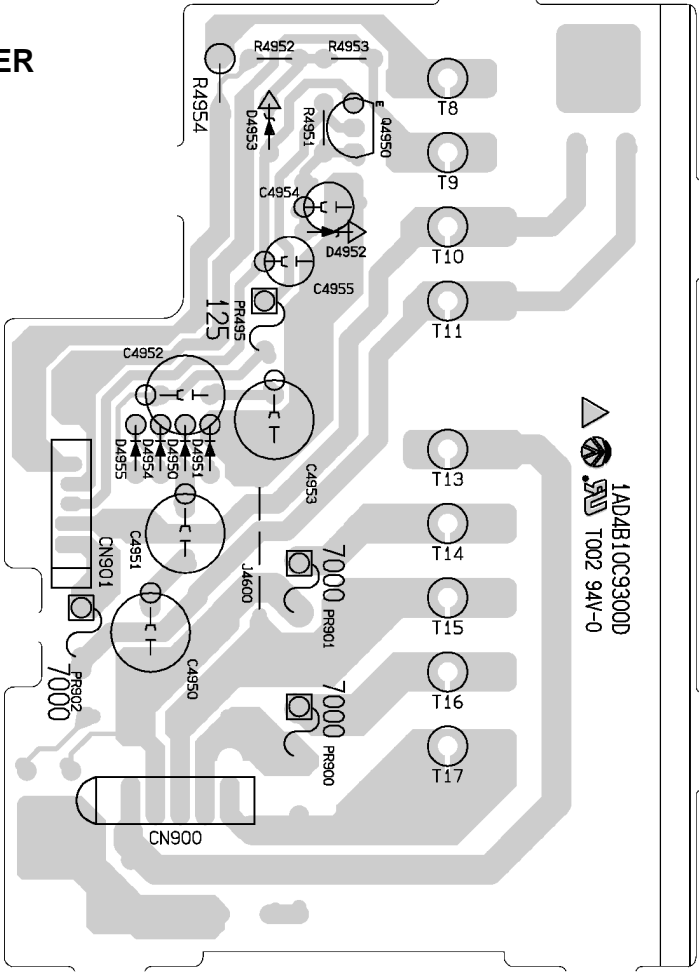
This is a basic schematic diagram.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

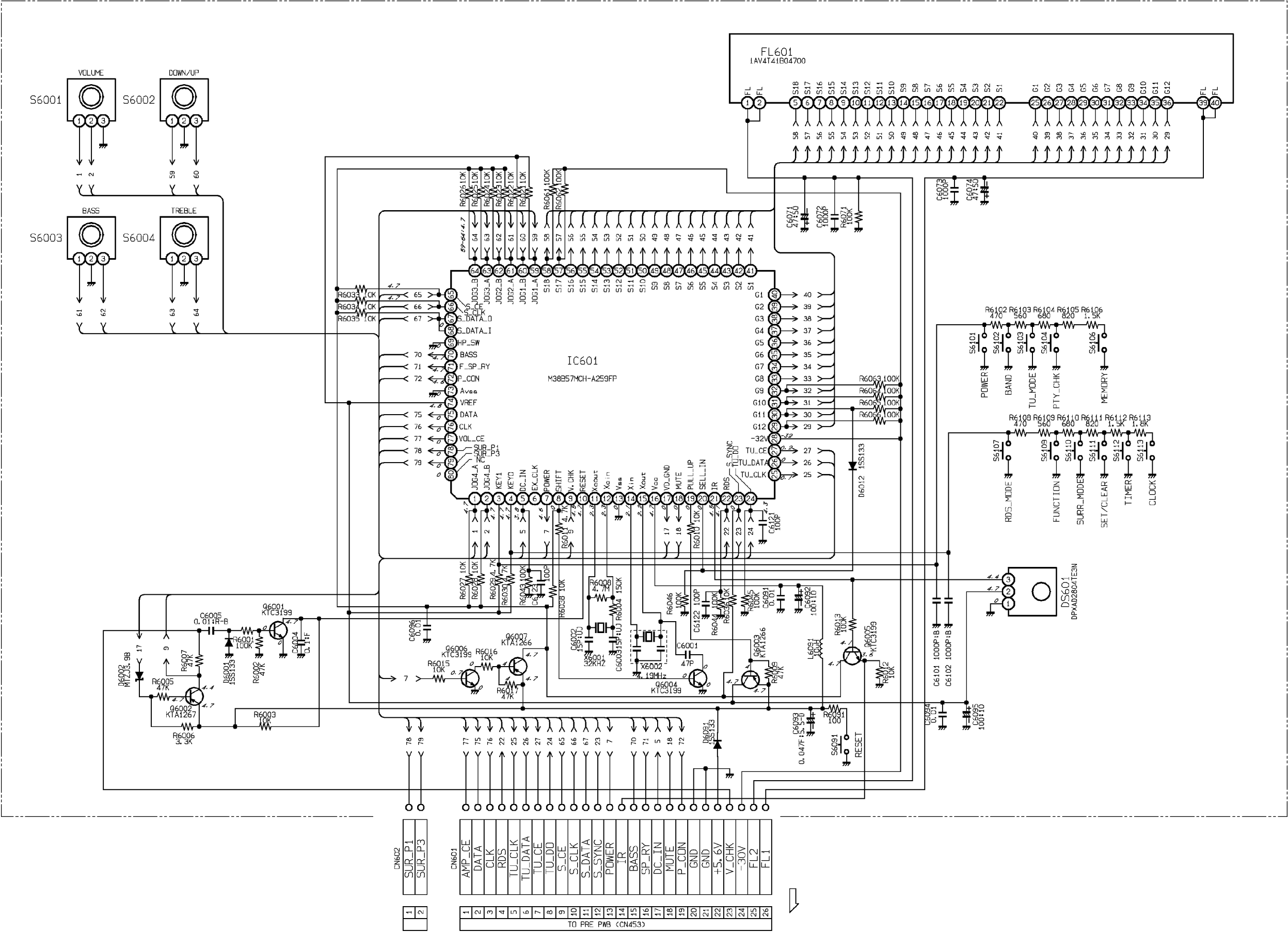


POWER TRANSFORMER
SECONDARY P.W.B

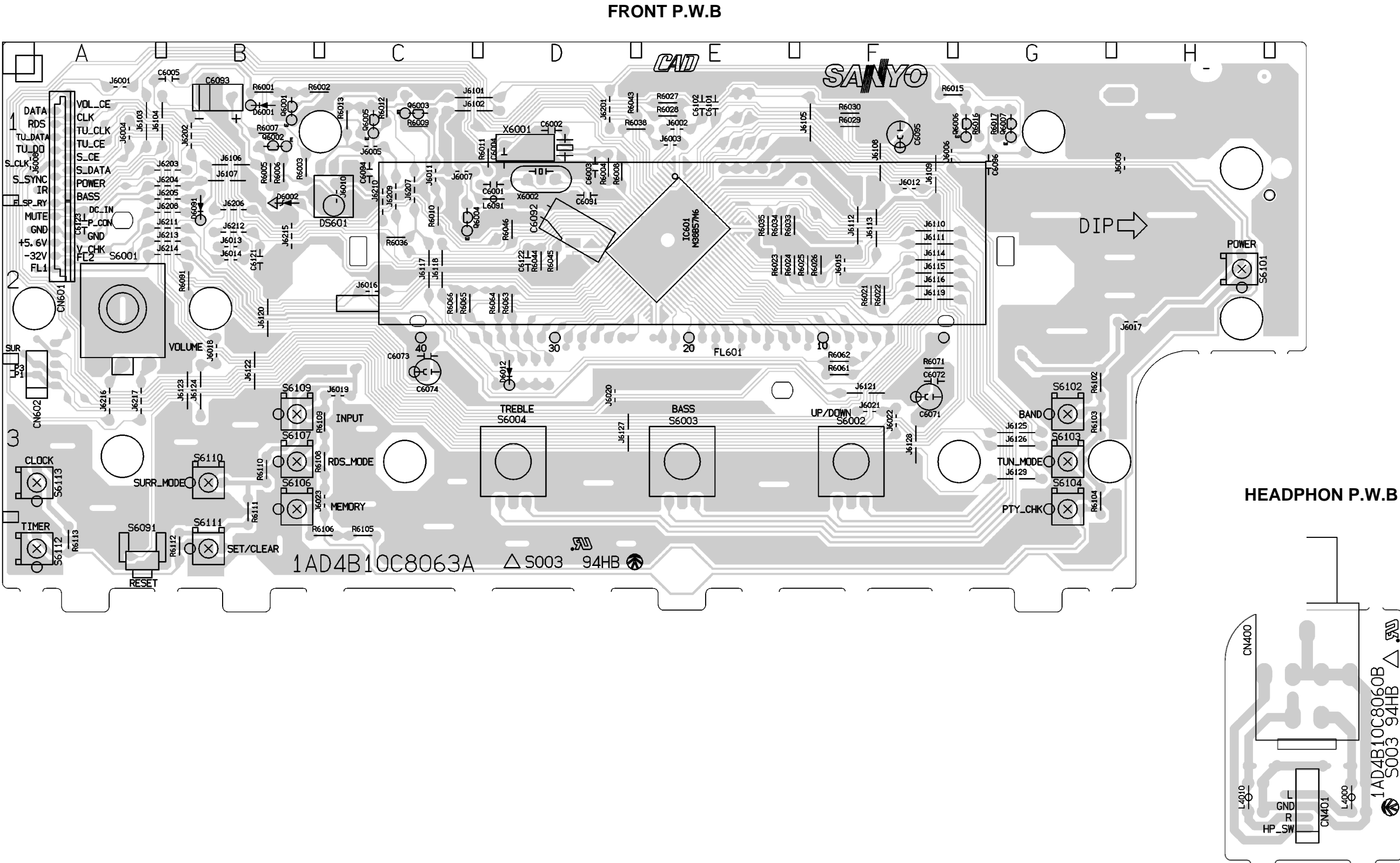


POWER TRANSFORMER
PRIMARY P.W.B

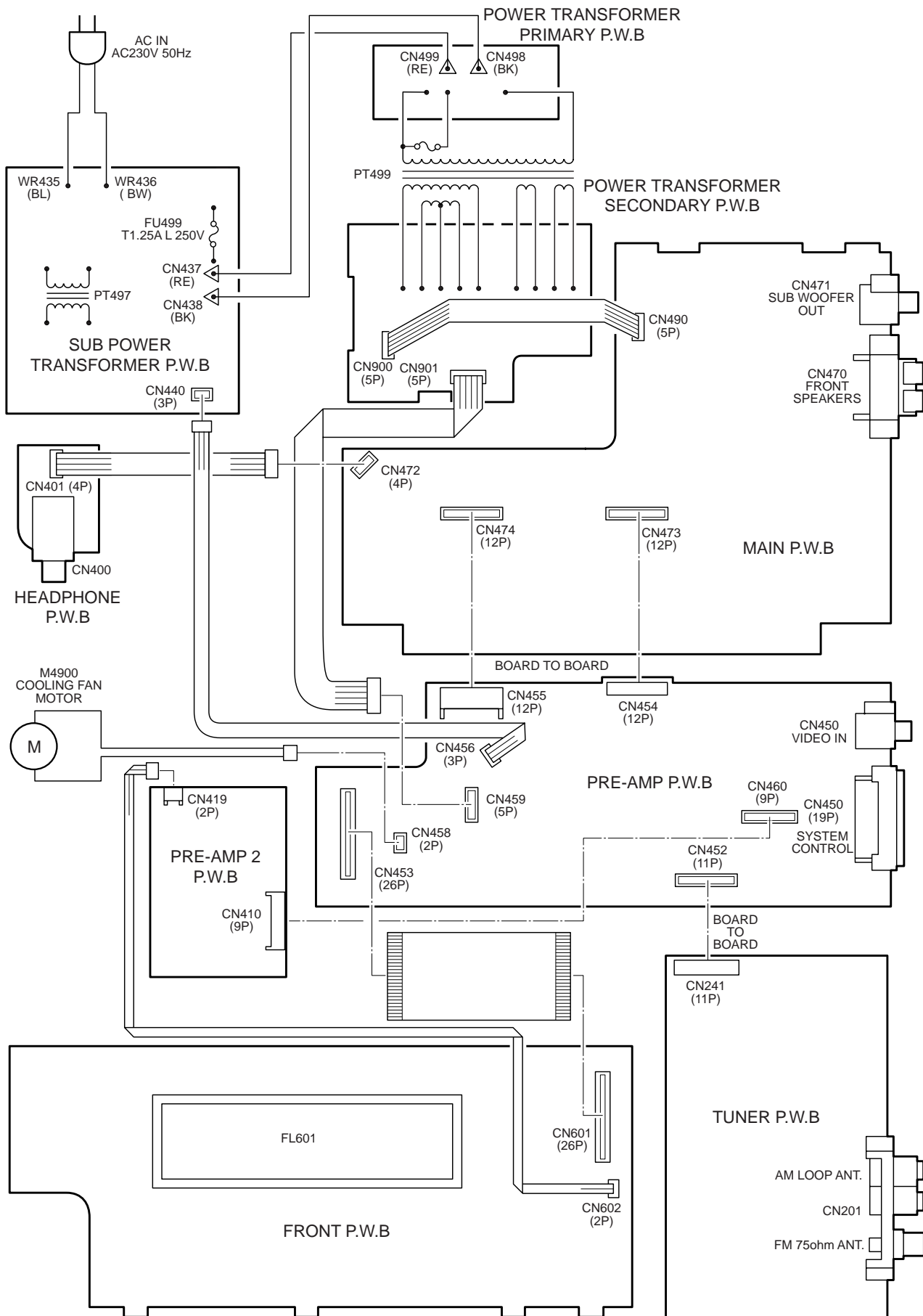
SCHEMATIC DIAGRAM (FRONT)



This is a basic schematic diagram.



WIRING CONNECTION



CD CHANGER SECTION

LASER BAEM SAFETY PRECAUTION

- Pick-up that emits a laser beam is used in this CD player section.

CAUTION :

USE OF CONTROLS OR ADJUSTMENTS
OR PERFORMANCE OF PROCEDURES
OTHER THAN THOSE SPECIFIED HEREIN
MAY RESULT IN HAZARDOUS RADIATION
EXPOSURE

LASER OUTPUT..... 0.6 mW Max. (CW)

WAVELENGTH 790 nm

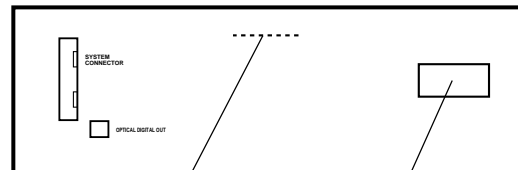
CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR
SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE
FOR STRÅLING

VARNING – OSYNLIG LASER STRÅLNING NÄR DENNA DEL ÄR ÖPPNAD
OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.

VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN
DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG
ÜBERBRÜCKT IST. NICHT. DEM STRAHL AUSSETZEN.

VARO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA
NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.



CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

(XE)

CD PICK-UP MAINTENANCE

About pick-up (Optical lens) Cleaning

Clean the lens with the specified cleaning disc or moisten a cotton swab with isopropyl alcohol and cleaning paper.

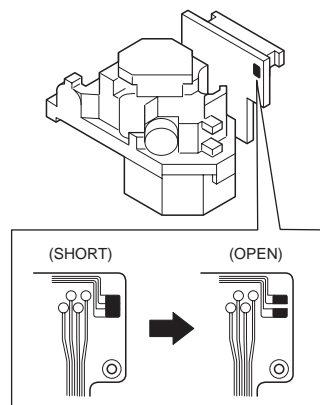
Specified cleaning disc : LC-1 (Part code : 645 026 1961 manufactured by SANYO.)

Regarding procedure of cleaning with moisten cotton swab, please refer to the attached as follows.

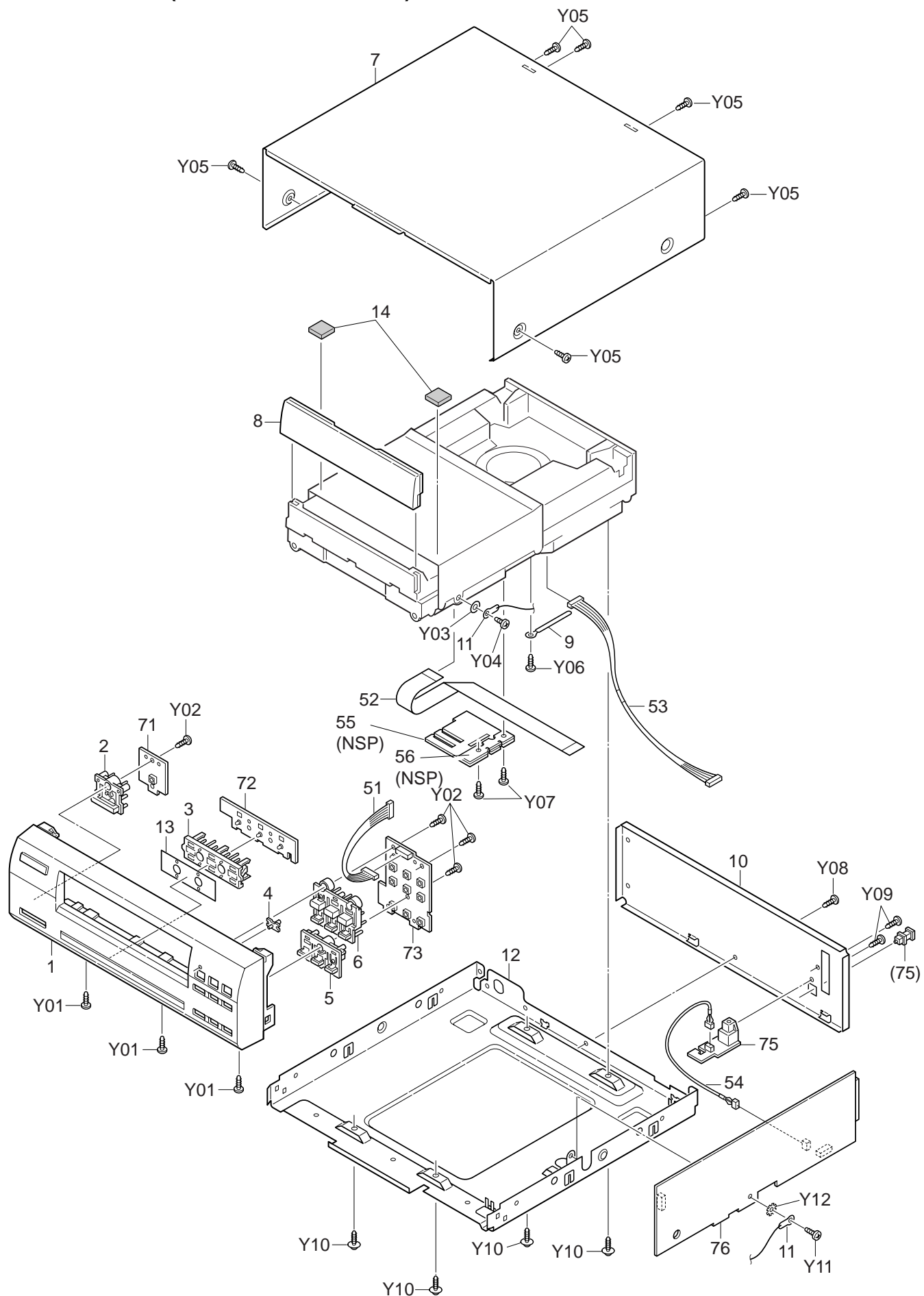
1. Cotton swab wrapped with Cleaning paper.
2. Add the isopropyl alcohol.
3. Gently move the tip of cotton swab just like a draw a whirlpool from inside to outside on the surface of lens.

CD PICK-UP REPLACEMENT

1. Insert the pick-up rail into the base chassis.
2. If the rack of the base chassis are missing when the pick-up rail have been installed, first wipe the tips of the rail with alcohol.
3. After the pick-up has been replaced, apply grease (**FLOIL G-474B**).
4. The pick-up P.W.Board pattern is "**shorted**", as shown in the figure, so that the new pick-up will not be susceptible to the effects of static.
5. Set the pattern to "**open**" after the pick-up has been replaced.



EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL Δ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY Δ , USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
 Regular type resistors are less than 1/4 W carbon type and 0 ohm chip resistors.
 Regular type capacitors are less than 50 V and less than 1000 μ F type of Ceramic type and Electrical type.
N.S.P : Not available as service parts.

PACKING & ACCESSORIES

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---|
| | 614 302 5276 | CARTON CASE, INNER SLEEVE |
| | 614 302 0752 | CUSHION, FRONT |
| | 614 302 0769 | CUSHION, BACK |
| | 614 231 6832 | LABEL, SAFETY, CLASS 1 |
| | 645 036 4334 | POLY SHEET-0750X0400*NC, SET (DC-X5C/UK, DC-X5CT/UK) |
| | 645 036 4341 | POLY SHEET-0750X0400*NC, SET (DC-077C/XE) |

CABINET & CHASSIS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|--|
| 1 | 614 309 7099 | ASSY, CABINET, FRONT |
| 2 | 614 309 7228 | BUTTON, OPEN, OPEN/CLOSE |
| 3 | 614 302 0622 | REFLECTOR, DISC SELECT |
| 4 | 614 302 0530 | DEC, WINDOW LED, PLAY |
| 5 | 614 309 7259 | BUTTON, DISC SELECT |
| 6 | 614 309 7235 | BUTTON, PLAY, PLAY/PAUSE |
| 7 | 614 309 6993 | ASSY CABINET, AFTER BENDING |
| 8 | 614 309 7402 | DEC, ESCUTCHEON, DISC TRAY |
| 9 | 614 130 0382 | LUG, CD MECHA LEAD DRESS |
| 10 | 614 309 7549 | PANEL, REAR (DC-X5C/UK, DC-X5CT/UK) |
| 10 | 614 309 8089 | PANEL, REAR (DC-077C/XE) |
| 11 | 614 129 9082 | LUG, FOR CD-MECHA WIRE |
| 12 | 614 302 4798 | ASSY, CABINET, BOTTOM |
| 13 | 614 302 0554 | DEC, SHEET, DISC SELECT |
| 14 | 614 250 6721 | FOOT, W/DOU CD MECHA |
| | 614 274 8190 | LABEL, SAFETY, LASER |

FIXING PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---|
| Y01 | 411 021 3503 | SCR S-TPG BIN 3X10, FRONT-BOTTOM FIX |
| Y02 | 411 021 3503 | SCR S-TPG BIN 3X10, FRONT PWB FIX |
| Y03 | 411 092 2900 | WASHER Z 3X10X1, MECHA |
| Y04 | 411 028 9201 | SCR S-TPG PAN 3X4, MECHA |
| Y05 | 411 021 3701 | SCR S-TPG BIN 3X10, CABINET |
| Y06 | 411 021 3503 | SCR S-TPG BIN 3X10, LUG |
| Y07 | 411 021 3503 | SCR S-TPG BIN 3X10, LEAD DRESS PWB |
| Y08 | 411 021 3701 | SCR S-TPG BIN 3X10, BOTTOM-REAR |
| Y09 | 411 021 3701 | SCR S-TPG BIN 3X10, REAR-ELECT PART |
| Y10 | 411 020 9902 | SCR S-TPG BRZ+FLG 3X8, CD MECHA |
| Y11 | 411 021 3503 | SCR S-TPG BIN 3X10, SIDE PWB |
| Y12 | 411 008 0402 | WASHER OUT TW 3, SIDE PWB |

ELECTRICAL PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|-----------------------|--|
| 51 | 614 305 2821 | ASSY, WIRE, CD-FRONT(CN183) |
| or | 614 308 5799 | ASSY, WIRE, CD-FRONT(CN183) |
| 52 | 645 037 0359 | FLEXIBLE FLAT CABLE, PICK UP(CN181) |
| 53 | 614 305 2647 | ASSY, WIRE, CD-MECHA(CN182) |
| or | 614 308 5782 | ASSY, WIRE, CD-MECHA(CN182) |
| 54 | 614 305 2838 | ASSY, WIRE, CD-DOUT(CN184) |
| or | 614 308 5805 | ASSY, WIRE, CD-DOUT(CN184) |
| 55 | Δ 614 302 4644 | PWB, FFC (N.S.P) |
| 56 | Δ 614 304 7995 | PWB, FFC2 (N.S.P) |

OPEN P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|--------------------------------|
| 71 | 614 302 4170 | ASSY, PWB, OPEN (Only Initial) |
| CN164 | 614 035 4911 | SOCKET, DIP 2P |
| or | 614 237 9752 | SOCKET |
| S1640 | 645 006 5958 | SWITCH, PUSH 1P-1T |
| or | 614 220 5471 | SWITCH, TACT |
| or | 614 240 1002 | SWITCH, TACT |

LED P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------------------|
| 72 | 614 302 4163 | ASSY, PWB, LED (Only Initial) |
| CN162 | 614 035 4959 | SOCKET, DIP 6P |
| CN163 | 614 035 4911 | SOCKET, DIP 2P |
| or | 614 237 9752 | SOCKET |
| D1620 | 408 032 5404 | LED SLP-9118C-51H-S-T1, FORLED_RED |
| D1621 | 408 032 5404 | LED SLP-9118C-51H-S-T1, FORLED_RED |
| D1622 | 408 032 5404 | LED SLP-9118C-51H-S-T1, FORLED_RED |

KEY P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------------------|
| 73 | 614 302 4156 | ASSY, PWB, KEY (Only Initial) |
| CN160 | 645 006 0861 | PLUG, 7P |
| CN161 | 614 035 4959 | SOCKET, DIP 6P |
| D1601 | 408 037 4204 | LED SLP-3118B-51HAB-T1, FOR_LED_YG |
| S1601 | 645 006 5958 | SWITCH, PUSH 1P-1T |
| or | 614 220 5471 | SWITCH, TACT |
| or | 614 240 1002 | SWITCH, TACT |
| S1602 | 645 006 5958 | SWITCH, PUSH 1P-1T |
| or | 614 220 5471 | SWITCH, TACT |
| or | 614 240 1002 | SWITCH, TACT |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------|
| S1603 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S1604 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S1605 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S1606 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S1607 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S1608 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S1609 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |

DIGITAL OUT P.W.BOARD ASSY

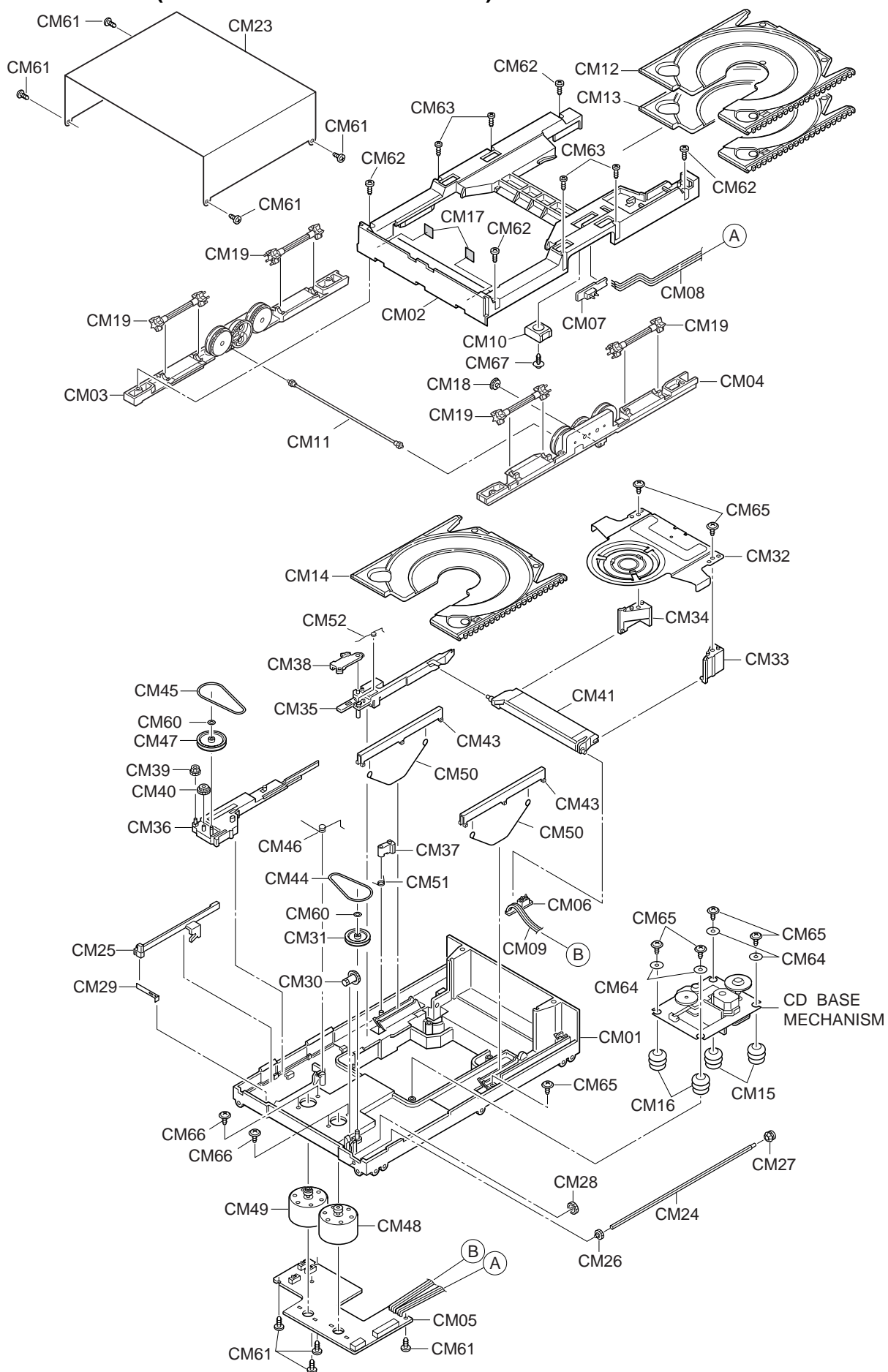
| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------------------|
| 75 | 614 302 4187 | ASSY,PWB,DIGITAL OUT (Only Initial) |
| CN165 | 645 005 7373 | PLUG,3P |
| or | 645 007 0068 | PLUG,3P |
| S1650 | 614 240 5703 | OPTO CONNECTOR |

CD P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|----------------------------|
| 76 | 614 310 9679 | ASSY,PWB,CD (Only Initial) |
| CN111 | 645 033 8168 | SOCKET,FPC 16P,CD_PICKUP |
| CN113 | 645 005 8127 | PLUG,6P,BASEMECHA |
| CN114 | 614 020 6562 | SOCKET,4P |
| or | 614 223 9223 | SOCKET |
| CN115 | 614 020 6609 | SOCKET,8P |
| CN116 | 614 305 2623 | ASSY,WIRE,CD_MECHA |
| or | 614 308 5768 | ASSY,WIRE,CD_MECHA |
| CN117 | 614 305 2630 | ASSY,WIRE,CD_MECHA |
| or | 614 308 5775 | ASSY,WIRE,CD_MECHA |
| CN190 | 645 006 0861 | PLUG,7P |
| CN198 | 645 005 7373 | PLUG,3P |
| or | 645 007 0068 | PLUG,3P |
| CN199 | 614 239 5455 | SOCKET,FORSYSTEM |
| D1211 | 407 063 9108 | ZENER DIODE MTZJ6.8B |
| D1221 | 407 099 5303 | ZENER DIODE MTZJ5.6B |
| D1480 | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| D1491 | 407 099 5204 | ZENER DIODE MTZJ5.1B |
| D1492 | △ 407 148 6701 | DIODE 1A3-I |
| D1493 | △ 407 148 6701 | DIODE 1A3-I |
| D1494 | △ 407 148 6701 | DIODE 1A3-I |
| D1495 | △ 407 148 6701 | DIODE 1A3-I |
| D1497 | △ 407 148 6701 | DIODE 1A3-I |
| D1901 | △ 07 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |
| D1902 | 407 012 4406 | DIODE 1SS133 |
| or | 407 012 5809 | DIODE 1SS176 |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|-------------------------|
| IC101 | 409 396 8100 | IC LA9241ML |
| IC102 | 409 435 2106 | IC LC78622NE |
| IC103 | △ 409 372 9602 | IC LA6541 |
| IC131 | △ 409 441 4507 | IC TA7291S(M) |
| IC132 | △ 409 441 4507 | IC TA7291S(M) |
| IC190 | 410 384 1003 | IC M38504M6-215FP,MICON |
| L1451 | 645 001 4550 | INDUCTOR,10U K |
| L1771 | 614 212 3171 | INDUCTOR,FERITE |
| or | 645 006 9864 | INDUCTOR,80U |
| L1781 | 614 212 3171 | INDUCTOR,FERITE |
| or | 645 006 9864 | INDUCTOR,80U |
| LUG01 | 645 023 8987 | FIXER |
| PR141 | △ 645 017 7521 | PROTECTOR,0.315A 125V |
| Q1301 | 405 008 7202 | TR 2SB810-E |
| or | 405 008 7301 | TR 2SB810-F |
| or | 405 008 6809 | TR 2SB808-F-SPA |
| Q1401 | △ 405 141 3604 | TR KTA1273-Y |
| or | △ 405 009 5207 | TR 2SB927-S |
| or | △ 405 001 9302 | TR 2SA1020-Y |
| Q1771 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 015 6403 | TR 2SC2785-F |
| or | 405 015 6205 | TR 2SC2785-E |
| or | 405 143 8706 | TR KTC3199-GR |
| Q1772 | 405 149 6003 | TR 2SJ498,FET_FOR_A_SW |
| Q1773 | 405 000 0508 | TR DTA114ES |
| or | 405 110 5400 | TR KRA102M-A |
| Q1781 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 015 6403 | TR 2SC2785-F |
| or | 405 015 6205 | TR 2SC2785-E |
| or | 405 143 8706 | TR KTC3199-GR |
| Q1782 | 405 149 6003 | TR 2SJ498,FET_FOR_A_SW |
| Q1783 | 405 000 0508 | TR DTA114ES |
| or | 405 110 5400 | TR KRA102M-A |
| Q1901 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 015 6403 | TR 2SC2785-F |
| or | 405 015 6205 | TR 2SC2785-E |
| or | 405 143 8706 | TR KTC3199-GR |
| Q1902 | 405 006 1905 | TR 2SA933S-S |
| or | 405 006 1806 | TR 2SA933S-R |
| or | 405 004 4601 | TR 2SA608-F-SPA |
| or | 405 004 5103 | TR 2SA608-G-SPA |
| or | 405 143 6504 | TR KTA1267-GR |
| Q1903 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 015 6403 | TR 2SC2785-F |
| or | 405 015 6205 | TR 2SC2785-E |
| or | 405 143 8706 | TR KTC3199-GR |
| R1211 | △ 402 082 0709 | RESISTOR 5.6 J- 2W |
| or | △ 402 072 0207 | RESISTOR 5.6 J- 2W |
| R1221 | △ 402 082 0709 | RESISTOR 5.6 J- 2W |
| or | △ 402 072 0207 | RESISTOR 5.6 J- 2W |
| T1001 | 407 212 0505 | THERMISTOR RXE065 |
| X1451 | 645 020 9024 | OSC,CRYSTAL 16.9344MHZ |
| X1900 | 645 018 6103 | OSC,CERAMIC 6.000MHZ |

EXPLODED VIEW (CD CHANGER MECHANISM)



PARTS LIST

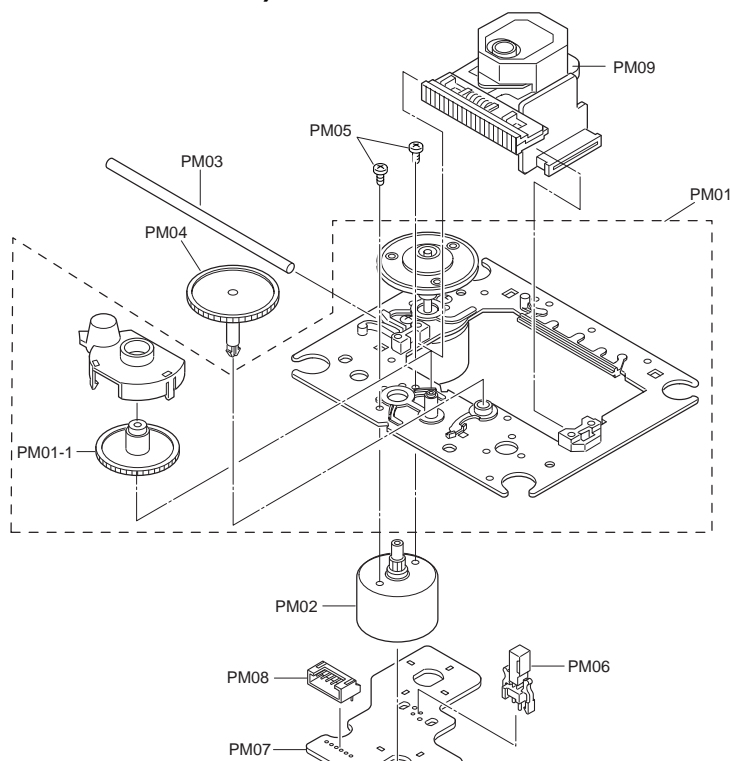
CD CHANGER MECHANISM (PM-CDC10TP-SH . . . Only Initial)

| REF.NO. | PART NO. | DESCRIPTION | REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|------------------------------|---------|--------------|------------------------|
| CM01 | 645 033 6072 | ASSY,CHASSIS | CM39 | 645 033 6263 | GEAR IDLER A2 |
| CM02 | 645 033 7512 | DRAWER 2 | CM40 | 645 033 6218 | GEAR IDLER C |
| CM03 | 645 033 5976 | ASSY,HOLDER L,DRAWER | CM41 | 645 033 6447 | LEVER |
| CM04 | 645 033 6898 | ASSY,HOLDER R3B,DRAWER | CM43 | 645 033 6454 | LIFTER,CARRIGE LIFT UP |
| CM05 | 645 033 6041 | ASSY,PC BOARD A | CM44 | 645 033 5778 | BELT |
| CM06 | 645 033 6065 | ASSY,PC BOARD B | CM45 | 645 033 5785 | BELT |
| CM07 | 645 033 6058 | ASSY,PC BOARD C | CM46 | 645 033 7048 | SPRING |
| CM08 | 645 033 5945 | LEAD WIRE | CM47 | 645 033 6393 | PULLEY A |
| CM09 | 645 033 5952 | LEAD WIRE | CM48 | 645 033 6003 | ASSY,MOTOR CARRIGE |
| CM10 | 645 033 6713 | SPACER SW | CM49 | 645 033 6010 | ASSY,MOTOR DRAWER |
| CM11 | 645 033 6027 | ASSY,GEAR DRIVE,SINCHRO | CM50 | 645 033 5723 | SPRING |
| CM12 | 645 033 6904 | ASSY,CRG 100,CARRIAGE NO.1 | CM51 | 614 303 7545 | SPRING |
| CM13 | 645 033 6911 | ASSY,CRG 200 | CM52 | 645 033 5747 | SPRING |
| CM14 | 645 033 6928 | ASSY,CRG 300 | CM60 | 645 033 5648 | WASHER |
| CM15 | 645 033 5877 | INSULATER | CM61 | 645 033 5594 | SCREW |
| CM16 | 645 033 5884 | INSULATER | CM62 | 645 033 7031 | SCREW |
| CM17 | 645 033 5907 | CUSHION | CM63 | 645 033 5563 | SCREW |
| CM18 | 645 033 6324 | BEVEL GEAR 4 | CM64 | 645 033 5631 | WASHER |
| CM19 | 645 033 5990 | ASSY,GEAR STAR,CARRIAGE LIFT | CM65 | 645 033 5570 | SCREW |
| CM23 | 645 033 6089 | COVER 2 | CM66 | 645 033 5600 | SCREW |
| CM24 | 645 033 6539 | SHAFT | CM67 | 645 033 5617 | SCREW |
| CM25 | 645 033 6461 | SLIDER 4 | | | |
| CM26 | 645 033 6201 | GEAR SPLINE | | | |
| CM27 | 645 033 6232 | BEVEL GEAR 1 | | | |
| CM28 | 645 033 6270 | GEAR IDLER 1 | | | |
| CM29 | 645 033 6102 | PLATE SPRING | | | |
| CM30 | 645 033 6287 | BEVEL GEAR 3 | | | |
| CM31 | 645 033 6225 | PULLEY C | | | |
| CM32 | 645 033 6034 | ASSY,CLAMPER | | | |
| CM33 | 645 033 6140 | ARM SLIDER R | | | |
| CM34 | 645 033 6157 | ARM SLIDER L | | | |
| CM35 | 645 033 6430 | SLIDER 1 | | | |
| CM36 | 645 033 5969 | ASSY,SLIDER 2,FWD/RVS | | | |
| CM37 | 645 033 6980 | ARM STOPPER A2 | | | |
| CM38 | 645 033 6416 | ARM STOPPER B | | | |

CD BASE MECHANISM (CD213CCM-SNSH . . . Only Initial)

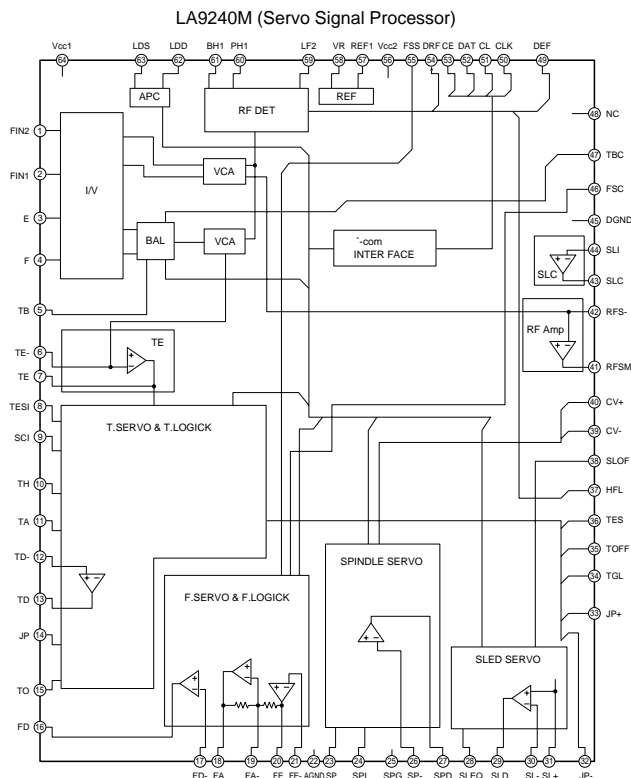
| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------|
| PM01 | 645 033 6751 | ASSY,MOTOR CHASSIS,BASE |
| PM01-1 | 645 033 6812 | GEAR B RP,SLED GEAR |
| PM02 | 645 033 6744 | ASSY,MOTOR GEAR,SLED |
| PM03 | 645 033 6805 | SLED SHAFT,PICK RAIL |
| PM04 | 645 033 6799 | GEAR A S,PICK DRIVE GEAR |
| PM05 | 645 033 6829 | SCREW+P2*3,SLED MOTOR FIX |
| PM06 | 645 033 6775 | LEAF SWITCH,LIMIT SWITCH |
| PM07 | 645 033 6782 | MOTOR 6P S PWB |
| PM08 | 645 033 6768 | CONNECTOR PIN 6P |
| PM09 | 614 303 5626 | PICK UP |

EXPLODED VIEW (CD BASE MECHANISM)



IC BLOCK DIAGRAM & DESCRIPTION

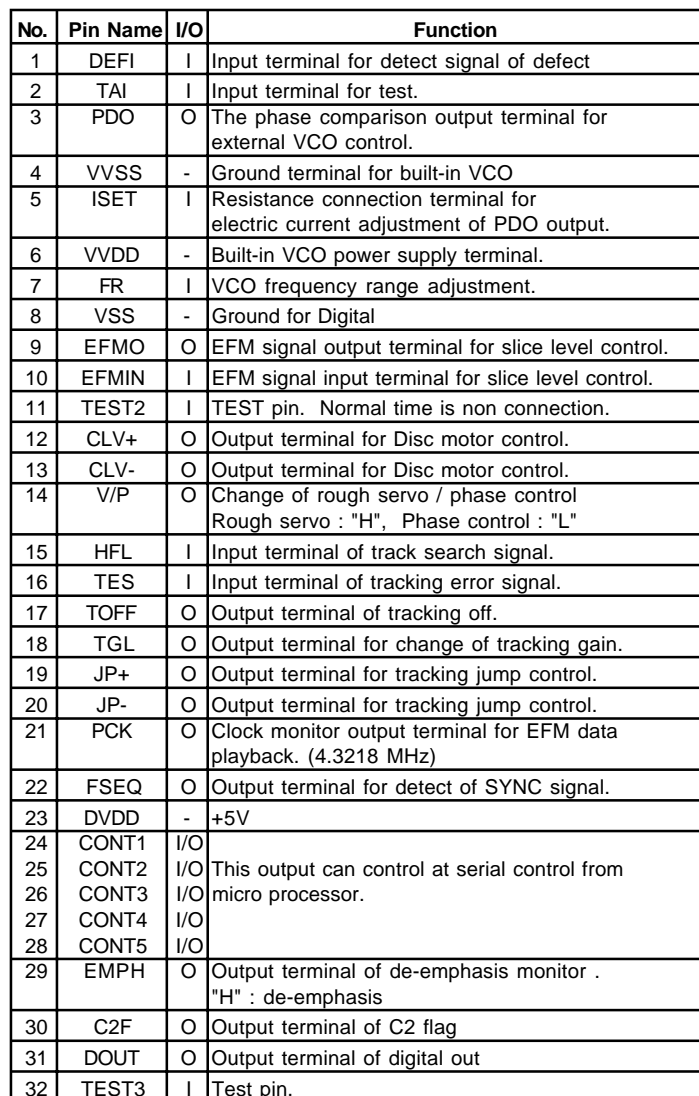
IC101 LA9241ML (Servo Signal Processor)



| No. | Pin Name | I/O | Function |
|-----|----------|-----|--|
| 1 | FIN2 | I | Connection Pin for Photo Diode of Pickup. |
| 2 | FIN1 | I | FIN2 + FIN1 = RF, FIN2 - FIN1 = FE |
| 3 | E | I | Connection Pin for Photo Diode of Pickup. |
| 4 | F | I | E - F = TE |
| 5 | TB | I | Input Pin for DC ingredient of TE Signal. |
| 6 | TE- | I | Connection Pin for Gain Setting Resistor of TE Signal to TE Signal Pin. |
| 7 | TE | O | Output Pin for Tracking Error Signal. |
| 8 | TESI | I | Input Pin for Track Error Sense Comparator. TE Signal through Band Pass, and Inputted. |
| 9 | SCI | I | Input Pin for Shock Detection. |
| 10 | TH | I | Connection Pin for Time Constant Setting of Tracking Gain. |
| 11 | TA | O | Output Pin for TA Amplifier. |
| 12 | TD- | I | Connection Pin for Constant Tracking Phase Compensation, Consist of between TD and VR. |
| 13 | TD | I | Connection Pin for Constant of Tracking Phase Compensation. |
| 14 | JP | I | Connection Pin for Amplitude Setting of Tracking Jump (Kick Pulse) Signal. |
| 15 | TO | O | Output Pin for Tracking Control Signal. |
| 16 | FD | O | Output Pin for Focusing Control Signal. |
| 17 | FD- | I | Connection Pin for Constant of Focusing Phase Compensation, Consist of between FD and FA. |
| 18 | FA+ | I | Connection Pin for Constant of Focusing Phase Compensation, Consist of between FD- and FA. |
| 19 | FA- | I | Connection Pin for Constant of Focusing Phase Compensation, Consist of between FA and FE. |
| 20 | FE | O | Output Pin for Focusing Error Signal. |
| 21 | FE- | I | Connection Pin for Gain Setting Resistor of FE Signal to FE Signal Pin. |
| 22 | AGND | - | Ground for Analog Signal. |

| No. | Pin Name | I/O | Function |
|-----|----------|-----|--|
| 23 | SP | O | Output Pin for Single End of Input Signal of the CV+, CV- Pin. |
| 24 | SPI | I | Input Pin for Spindle Amplifier. |
| 25 | SPG | I | Connection Pin for Gain Setting Resistor, when Spindle 12 cm Mode. |
| 26 | SP- | I | Connection Pin for Constant of Spindle Phase Compensation with SPD Pin. |
| 27 | SPD | O | Output Pin for Spindle Control Signal. |
| 28 | SLEQ | I | Connection Pin for Constant of Sled Phase Compensation. |
| 29 | SLD | O | Output Pin for Sled Control Signal. |
| 30 | SL- | I | Input Pin for Sled Signal from Micro Processor. |
| 31 | SL+ | I | |
| 32 | JP- | I | Input Pin for Tracking Jump Signal from Digital Signal Processor. |
| 33 | JP+ | I | |
| 34 | TGL | I | Input Pin for Tracking Gain Control Signal from Digital Signal Processor. TGL = H : Gain Low |
| 35 | TOFF | I | Input Pin for Tracking Off Control Signal from Digital Signal Processor. TOFF = H : OFF |
| 36 | TES | O | Output Pin for Track Error Sense Signal to Digital Signal Processor. |
| 37 | HFL | I | High Frequency Level Signal Use Detection Main-Beam Position is on the pit or mirror. |
| 38 | SLOF | I | Input Pin for Sled Servo Off Control. |
| 39 | CV- | I | Input Pin for Constant Linear Velocity Error Signal from Digital Signal Processor. |
| 40 | CV+ | I | |
| 41 | RFSM | O | Output Pin for RF Signal. |
| 42 | RFS- | I | Connection Pin for Gain Setting of RF and Constant Setting of 3T Compensation of the EFM Signal with RFSM Pin. |
| 43 | SLC | O | Slice Level Control Signal is Output Pin. It Control Level of Data-Slice by Digital Signal Processor of the RF Waveform. |
| 44 | SLI | I | Input Pin for Level Control of Data-Slice by Digital Signal Processor. |
| 45 | DGND | - | Ground for Digital Signal. |
| 46 | FSC | O | Output Pin for Focus Search Smooth Condenser |
| 47 | TBC | O | Connection Pin for Variable Range Setting of EF Balance. |
| 48 | NC | - | No Connect |
| 49 | DEF | O | Output Pin for Defect Detection of Disc. |
| 50 | CLK | I | Input Pin for Reference Clock Pulse. (4.23 MHz of Digital Signal Processor) |
| 51 | CL | I | Input Pin of Clock Pulse for Command from Micro Processor. |
| 52 | DAT | I | Input Pin of Data for Command from Micro Processor. |
| 53 | CE | I | Input Pin of Chip Enable for Command from Micro Processor. |
| 54 | DRF | O | Output Pin for Detect of RF Level. |
| 55 | FSS | I | Select Pin for Focus Search Mode |
| 56 | VCC2 | - | VCC for Servo and Digital Root. |
| 57 | REF1 | I | Bus Control Connection Pin for Reference Voltage. |
| 58 | VR | O | Output Pin for Reference Voltage. |
| 59 | LF2 | I | Connection Pin for Time Constant Setting of Detect Detection of the Disc. |
| 60 | PH1 | I | Capacitor Connection Pin for Peak-hold of RF Signal. |
| 61 | BH1 | I | Capacitor Connection Pin for Bottom-hold of RF Signal. |
| 62 | LDD | O | Output Pin of APC (Automatic Power Control) Circuit. |
| 63 | LDS | I | Input Pin of APC (Automatic Power Control) Circuit. |
| 64 | VCC1 | I | VCC for RF Root. |

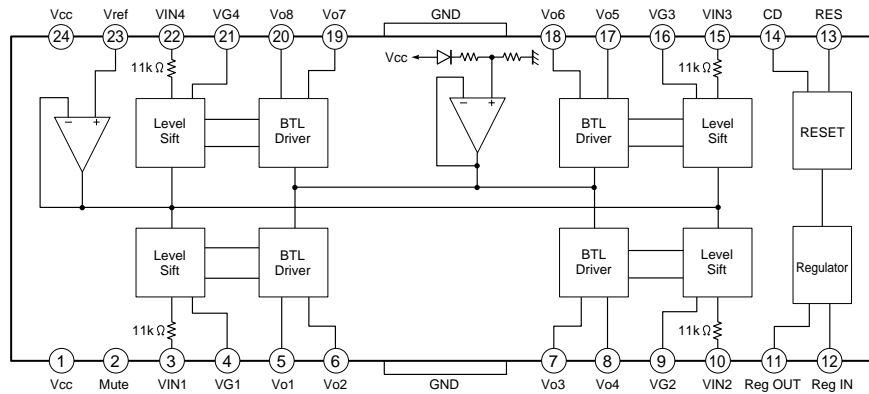
IC102 LC78622NE (Digital Signal Processor)



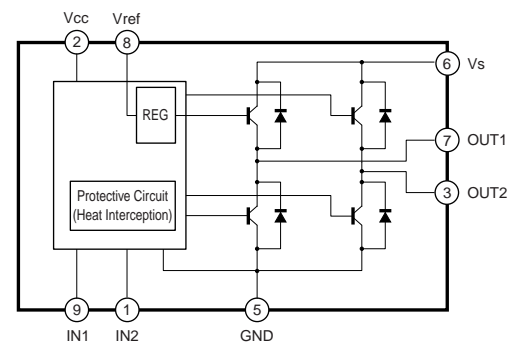
- 40 -

IC BLOCK DIAGRAM & DESCRIPTION

IC103 LA6541 (Pick-up Actuator & CD Mechanism Motor)

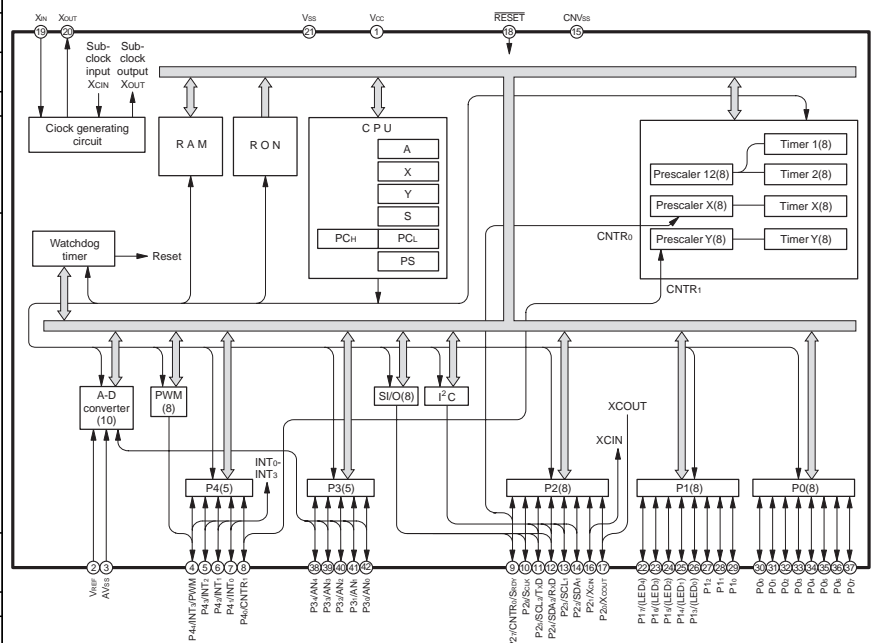


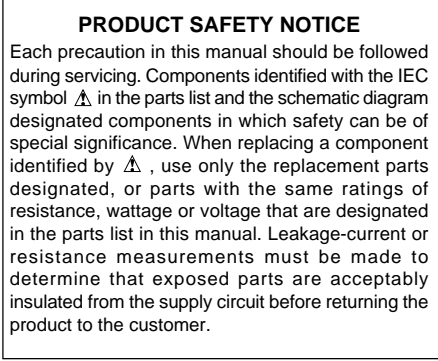
IC131,132 TA7291S (Bridge Driver)



IC190 M38504M6-215FP (Single Micro chip 8-bit)

| Pin | Name | Function |
|-----|----------------|---|
| 1 | VCC | Apply voltage of 2.7 - 5.5V to Vcc, and 0V to Vss. |
| 2 | VREF | Reference voltage input pin for A-D converter. |
| 3 | AVSS | Connect Vss. |
| 4 | P44/INT3/PWM | 8-bit CMOS I/O port with the same function as port P0. CMOS compatible input level. CMOS 3-state output structure. |
| 5 | P43/INT2 | |
| 6 | P42/INT1 | |
| 7 | P41/INT0 | |
| 8 | P40/CNTR1 | I/O direction register allows each pin to be individually programmed as either input or 8-bit CMOS I/O port. CMOS compatible input level. CMOS 3-state output structure. P22 to P25 can be switched between CMOS compatible input level or SMBUS input level in the I ² C-BUS interface function. P24, P23 : N-channel open-drain structure in the I ² C-BUS interface function. P22, P23 : N-channel open-drain structure. |
| 9 | P27/CNTR0/SRDY | |
| 10 | P26/SCLK | |
| 11 | P25/SCL2/TxD | |
| 12 | P24/SDA2/RxD | This pin controls the operation mode of the chip. Normally connected to Vss |
| 13 | P23/SCL1 | |
| 14 | P22/SDA1 | |
| 16 | P21/XCIN | |
| 17 | P20/XOUT | Reset input pin for active "L". |
| 15 | CNVss | |
| 18 | RESET | |
| 19 | XIN | |
| 20 | XOUT | Connect a ceramic resonator or quartz-crystal oscillator between the XIN and XOUT pins to set the oscillation frequency. |
| 21 | Vss | Apply voltage of 2.7 - 5.5V to Vcc, and 0V to Vss. |
| 22 | P17 | 8-bit CMOS I/O port. CMOS 3-state output structure. I/O direction register allows each pin to be individually programmed as either input or output. CMOS compatible. |
| 23 | P16 | |
| 24 | P15 | |
| 25 | P14 | |
| 26 | P13 | P13 to P17 (5 bits) are enabled to output large current for LED drive (M38513E4/M4). |
| 27 | P12 | |
| 28 | P11 | |
| 29 | P10 | |
| 30 | P07 | P10 to P17 (8-bits) are enabled to output large current for LED drive (M38514E6/M6) |
| 31 | P06 | |
| 32 | P05 | |
| 33 | P04 | |
| 34 | P03 | 8-bit CMOS I/O port with the same function as port P0. CMOS compatible input level. CMOS 3-state output structure. |
| 35 | P02 | |
| 36 | P01 | |
| 37 | P00 | |
| 38 | P34/AN4 | |
| 39 | P33/AN3 | |
| 40 | P32/AN2 | |
| 41 | P31/AN1 | |
| 42 | P30/AN0 | |





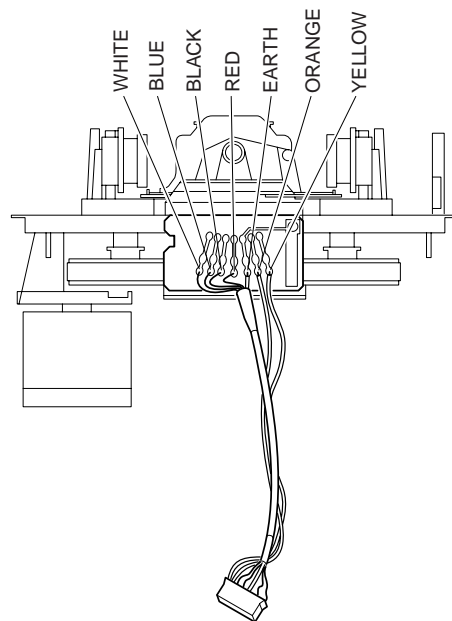


TAPE DECK ADJUSTMENT

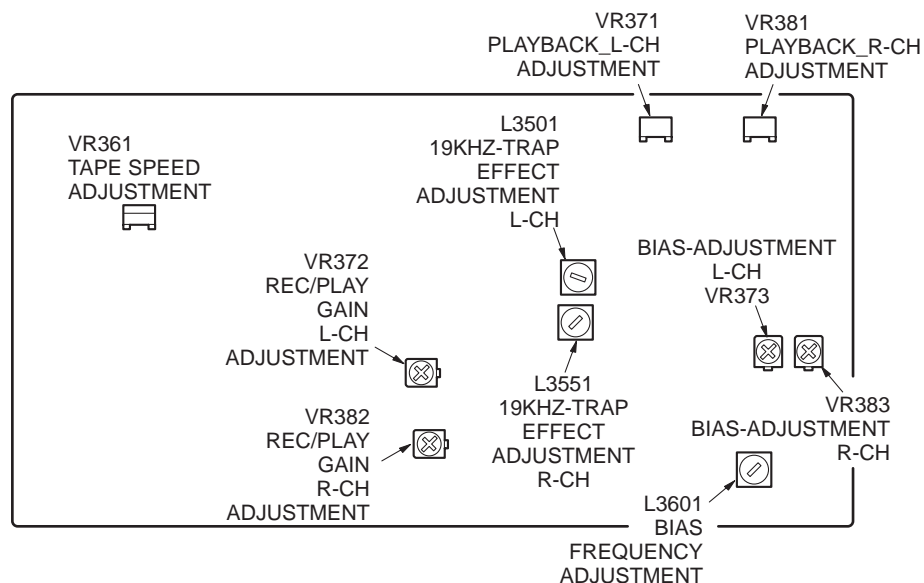
1. Azimuth Adjustment

- Be sure to clean the heads before attempting to make any adjustment.
 - Be sure both channels (1 and 2) are the same level. (Using a dual-channel oscilloscope)
 - Be sure both channel's waveform are same for the phase matching.
 - After completion of the adjustment, use the threadlock (TB-1401B) to secure the azimuth adjustment screws.
1. Load a test tape (VTT-738 etc. : 10kHz) in the Deck.
 2. Press the PLAY button. (Normal playback)
 3. Use a + tip screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback.
 4. Press the PLAY button. (Reverse playback)
 5. Use a + tip screwdriver to turn the screw for reverse azimuth adjustment so that the left and right outputs are maximized at the same phase during reverse playback.
 6. Adjust so that the waveforms for the left and right channels are in alignment.

2. Replacement of Head



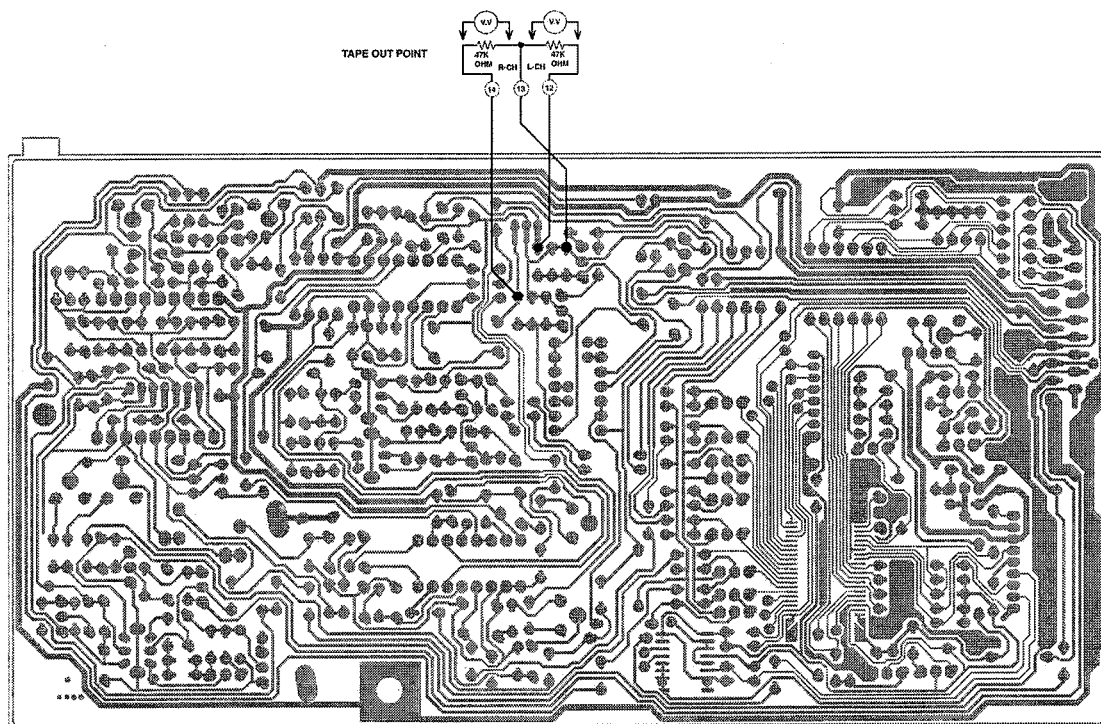
3. Parts Location



TAPE DECK ADJUSTMENT

4. Amplifier Adjustment

| No. | Item | Test Tape | Input | Dolby Switch | Output | Adjust Point | Remarks |
|-----|--------------------|-----------|-------------------|--------------|----------|--------------|--|
| 1 | Playback Level | TCC130 | - | OFF | TAPE OUT | VR371,381 | Align so that TAPE OUT output becomes 388mV. |
| 2 | Rec/Play Frequency | AC-225 | 1kHz, 10kHz -28dB | ON | TAPE OUT | VR373,383 | Record and play signal, then set frequency characteristic 1kHz output to 0dB. Adjust VR so that 10kHz output becomes $0\text{dB} \pm 0.5\text{dB}$ |
| 3 | Rec/Play Level | AC-225 | 1kHz -18dB | ON | TAPE OUT | VR372,382 | Adjust VR so that R/P output becomes monitor output level. (Monitor output level $\pm 0.5\text{dB}$) |



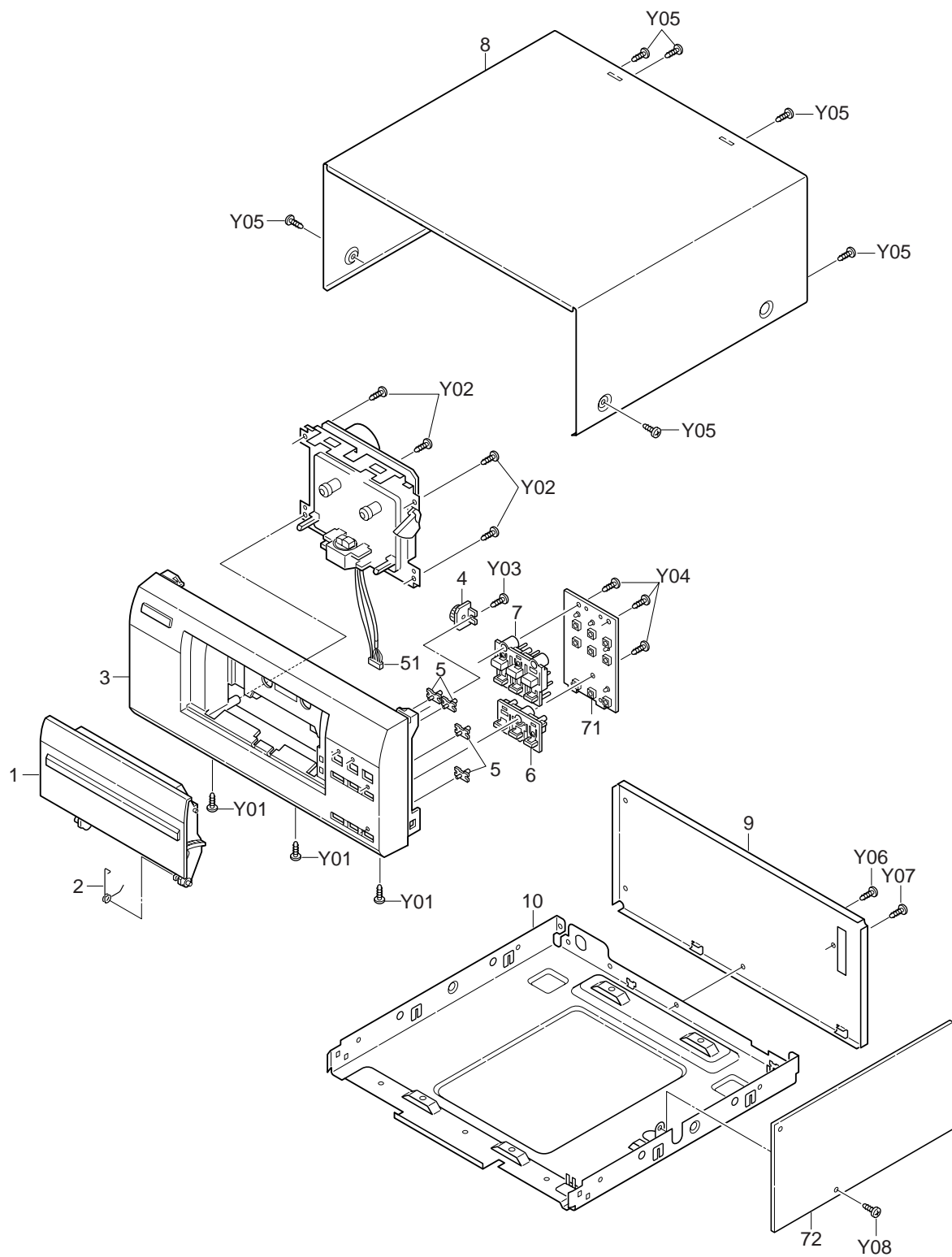
5. Tape Speed Adjustment

- Connect the Frequency Counter to LINE OUT.
1. Insert the test tape (MTT-111N, etc.; 3,000Hz) into the DECK.
 2. Press the PLAY button.
 3. Adjust VR361 so that a frequency counter reading of $3,010 \pm 5\text{Hz}$ is obtained.
 4. Press the STOP button, and eject the test tape.

6. Torque Measurement

| Item | Take-up Torque | Back tention | Pulley tention |
|---------------|--|--|---|
| Test Cassette | PLAY : TW2111A (FWD) PLAY : TW2121A (REV) F.FWD / REW : TW2231 | PLAY : TW2111A (FWD) PLAY : TW2121A (REV) | Driving power cassette : TW-2412 (PLAY) TW-2422 (REV. PLAY) |
| PLAY | 25 ~ 63 gr.cm | 2 ~ 6 gr.cm | |
| F.FWD | 60 ~ 120 gr.cm | - | > 70 g |
| REW | 60 ~ 120 gr.cm | - | |

EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL Δ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY Δ , USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
Regular type resistors are less than 1/4 W carbon type and 0 ohm chip resistors.
Regular type capacitors are less than 50 V and less than 1000 μ F type of Ceramic type and Electrical type.

PACKING & ACCESSORIES

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---|
| | 614 308 1449 | CARTON CASE, INNER SLEEVE (DC-X5CT/UK) |
| | 614 309 7655 | CARTON CASE (RD-X5/UK-2) |
| | 614 309 7662 | CARTON CASE (RD-077/XE) |
| | 614 302 0738 | CUSHION, FRONT, FRONT |
| | 614 302 0745 | CUSHION, BACK, BACK |
| | 645 036 4358 | POLY SHEET-0850X0500*NC, SET (DC-X5CT/UK, RD-X5/UK) |
| | 645 036 4365 | POLY SHEET-0850X0500*NC, SET (RD-077/XE) |

CABINET & CHASSIS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|------------------------------|
| 1 | 614 309 7167 | ASSY, LID, CASSETTE |
| 2 | 614 292 1548 | SPRING, WIRE, LID CASSETTE |
| 3 | 614 303 9464 | ASSY, CABINET, FRONT |
| 4 | 614 307 1396 | ASSY, GEAR, LID CASSETTE |
| 5 | 614 302 0530 | DEC, WINDOW LED, PLAY/REC |
| 6 | 614 309 7259 | BUTTON, SEL, REV. MODE/DOLBY |
| 7 | 614 309 7266 | BUTTON, PLAY, PLAY/REC |
| 8 | 614 309 6986 | ASSY, CABINET, AFTER BENDING |
| 9 | 614 309 7525 | PANEL, REAR |
| 10 | 614 302 4798 | ASSY, CABINET, BOTTOM |

FIXING PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------------------|
| Y01 | 411 021 3503 | SCR S-TPG BIN 3X10, FRONT-BOTTOM |
| Y02 | 411 021 3503 | SCR S-TPG BIN 3X10, DECK MECHA |
| Y03 | 411 021 3503 | SCR S-TPG BIN 3X10, GEAR |
| Y04 | 411 021 3503 | SCR S-TPG BIN 3X10, FRONT PWB |
| Y05 | 411 021 3701 | SCR S-TPG BIN 3X10, CABINET |
| Y06 | 411 021 3701 | SCR S-TPG BIN 3X10, BOTTOM-REAR |
| Y07 | 411 021 3701 | SCR S-TPG BIN 3X10, REAR-ELECT PART |
| Y08 | 411 021 3503 | SCR S-TPG BIN 3X10, SIDE PWB |

ELECTRICAL PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|--------------------------------------|
| 51 | 614 298 3928 | ASSY, WIRE, R/P&E. HEAD LEAD (CN381) |
| or | 614 308 1975 | ASSY, WIRE, R/P&E. HEAD LEAD (CN381) |

DECK P.W.B. BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|-----------------------|--|
| 71 | 614 301 1774 | ASSY, PWB, DECK LOG.W/DOLBY, DECK AMP (Only Initial) |
| C3606 | 403 058 1508 | POLYESTER 1500P K 50V |
| C3607 | 403 059 0302 | POLYESTER 0.018U K 50V |
| C3609 | 403 059 6502 | POLYESTER 0.022U K 50V |
| CN301 | 614 239 5455 | SOCKET |
| CN311 | 645 012 2743 | SOCKET, DIP 9P |
| CN312 | 614 020 6562 | SOCKET, 4P |
| or | 614 223 9223 | SOCKET |
| CN321 | 614 268 2913 | ASSY, WIRE, MECHA-LEAD |
| or | 614 308 1968 | ASSY, WIRE, MECHA-LEAD |
| CN331 | 645 012 2736 | SOCKET, DIP 8P |
| CN371 | 645 006 0861 | PLUG, 7P |
| CN372 | 645 005 8226 | PLUG, 3P |
| or | 645 009 6433 | PLUG, 3P |
| D3301 | 407 012 4406 | DIODE 1SS133 |
| D3601 | 407 012 4406 | DIODE 1SS133 |
| D3602 | 407 012 4406 | DIODE 1SS133 |
| D3621 | Δ 407 004 9709 | DIODE DSK10C |
| D3901 | 407 099 5303 | ZENER DIODE MTZJ5.6B |
| IC331 | 410 341 8700 | IC M38503M4-092FP |
| IC351 | 409 294 6307 | IC CXA1552P |
| IC361 | 409 050 8200 | IC TC4011BF |
| IC362 | 409 241 5308 | IC BA3126N |
| IC371 | 409 486 3503 | IC NJM4580L |
| IC372 | 409 345 3804 | IC BU4066BC |
| IC373 | 409 214 1900 | IC CXA1298AP |
| L3501 | 614 270 4295 | FILTER, LC |
| L3551 | 614 270 4295 | FILTER, LC |
| L3601 | 645 009 0615 | TRANS, OSC, 85KHZ |
| L3701 | 614 029 3142 | MX COIL |
| or | 614 029 3937 | MX COIL |
| L3801 | 614 029 3142 | MX COIL |
| or | 614 029 3937 | MX COIL |
| L3901 | 645 001 4581 | INDUCTOR, 100U K |
| or | 645 031 7842 | INDUCTOR, 100U K |
| LUG30 | 645 023 8987 | FIXER, FIX_SHIELD_WIRE |
| Q3301 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3302 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3303 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3304 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3305 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |

PARTS LIST

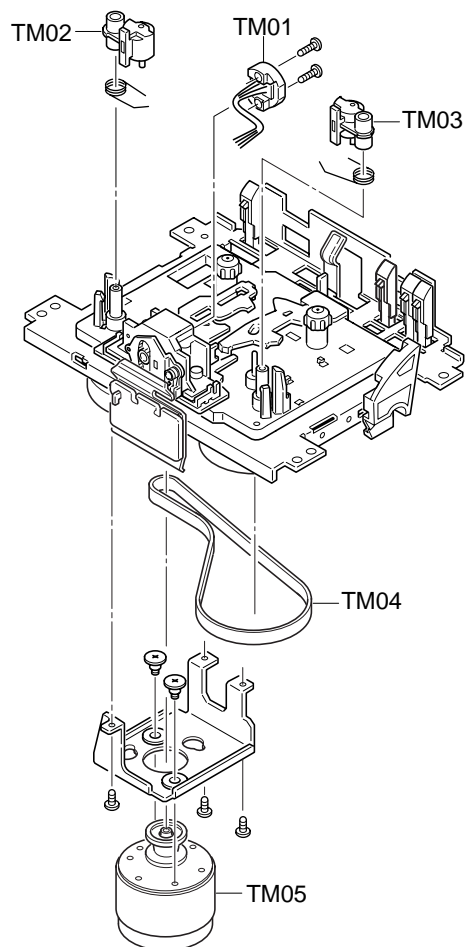
| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|------------------|
| Q3306 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3307 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3308 | 405 151 5209 | TR KRA107M |
| or | 405 000 0904 | TR DTA114YS |
| Q3309 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3310 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3311 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3312 | 405 151 5209 | TR KRA107M |
| or | 405 000 0904 | TR DTA114YS |
| Q3501 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3551 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3601 | 405 006 3909 | TR 2SA952-K |
| or | 405 006 4005 | TR 2SA952-L |
| or | 405 141 3703 | TR KTA1271-Y |
| Q3602 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3603 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3604 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3605 | 405 077 8100 | TR 2SA1437 |
| Q3606 | 405 146 1209 | TR KRC104M |
| or | 405 078 3005 | TR BA1L4M |
| or | 405 000 6104 | TR DTC144ES |
| Q3621 | 405 006 3909 | TR 2SA952-K |
| or | 405 006 4005 | TR 2SA952-L |
| or | 405 141 3703 | TR KTA1271-Y |
| Q3622 | 405 006 3909 | TR 2SA952-K |
| or | 405 006 4005 | TR 2SA952-L |
| or | 405 141 3703 | TR KTA1271-Y |
| Q3701 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3702 | 405 151 4400 | TR KTD1303 |
| or | 405 021 0204 | TR 2SD1012-F-SPA |
| or | 405 021 0600 | TR 2SD1012-G-SPA |
| or | 405 033 6706 | TR 2SD1468S-R |
| or | 405 033 6805 | TR 2SD1468S-S |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------|
| Q3801 | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 020 7402 | TR 2SC945A-P |
| or | 405 020 7204 | TR 2SC945A-K |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q3802 | 405 151 4400 | TR KTD1303 |
| or | 405 021 0204 | TR 2SD1012-F-SPA |
| or | 405 021 0600 | TR 2SD1012-G-SPA |
| or | 405 033 6706 | TR 2SD1468S-R |
| or | 405 033 6805 | TR 2SD1468S-S |
| Q3901 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q3902 | 405 151 5209 | TR KRA107M |
| or | 405 000 0904 | TR DTA114YS |
| R3609 | 401 009 8606 | CARBON 39 JA 1/2W |
| VR361 | 645 003 5647 | VR,SEMI,1K N |
| VR371 | 645 003 5692 | VR,SEMI,22K N |
| VR372 | 645 003 5531 | VR,SEMI,10K N |
| VR373 | 645 003 5548 | VR,SEMI,100K N |
| VR381 | 645 003 5692 | VR,SEMI,22K N |
| VR382 | 645 003 5531 | VR,SEMI,10K N |
| VR383 | 645 003 5548 | VR,SEMI,100K N |
| X3301 | 614 215 5561 | RESONATOR,CERAM |
| or | 645 013 7532 | OSC,CERAMIC 4.19MHZ |

DECK SW P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------------|
| 72 | 614 301 1781 | ASSY,PWB,DECK SW (Only Initial) |
| CN341 | 645 012 2736 | SOCKET,DIP 8P |
| D3331 | 408 037 4204 | LED SLP-3118B-51HAB-T1 |
| D3332 | 408 037 4204 | LED SLP-3118B-51HAB-T1 |
| D3333 | 408 032 5404 | LED SLP-9118C-51H-S-T1 |
| D3334 | 408 032 5404 | LED SLP-9118C-51H-S-T1 |
| S3331 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3332 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3333 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3334 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3335 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3336 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3337 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3338 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S3339 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |

EXPLODED VIEW (TAPE MECHANISM)

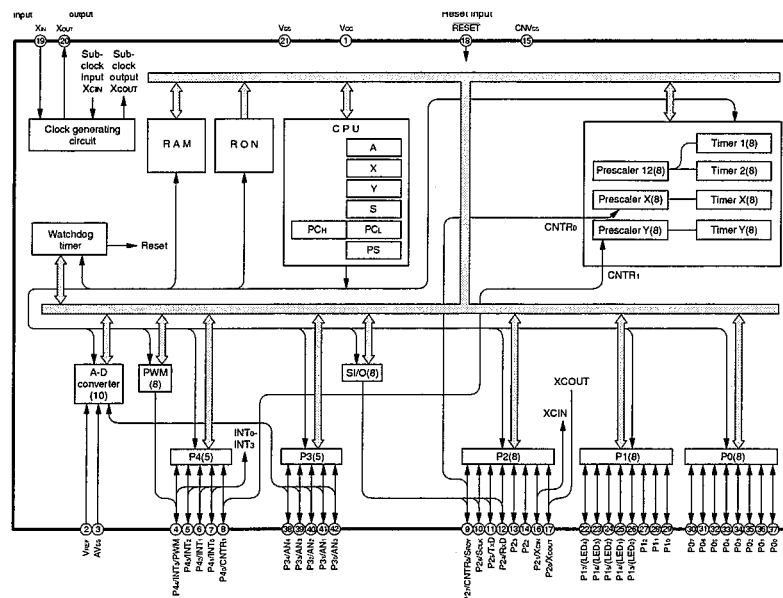


TAPE MECHANISM (TM-RD007MEC-SH)

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-----------------------------|
| | 614 302 7898 | ASSY, MECHA, TM-RD007MEC-SH |
| TM01 | 645 033 3347 | HEAD,R/P AUDIO |
| TM03 | 645 028 0030 | ASSY,PINCH-ARM |
| TM02 | 645 028 0542 | ASSY,PINCH-ARM |
| TM05 | 614 304 5564 | ASSY,MOTOR |
| TM04 | 645 024 6142 | MAIN-BELT |

IC BLOCK DIAGRAM & DESCRIPTION

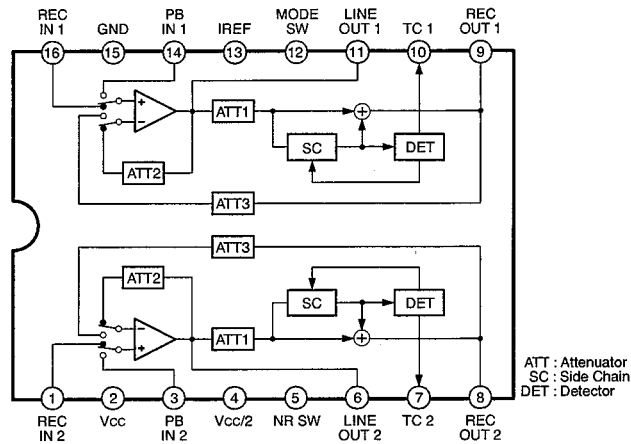
IC331 M38503M4 (Syngle-Chip 8-Bit CMOS Microcomputer)



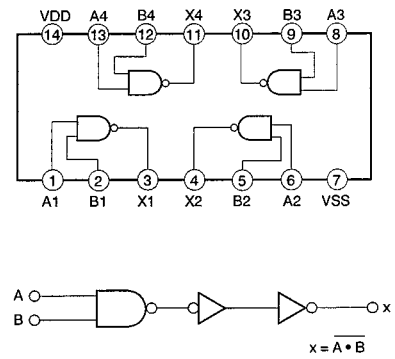
| No. | Pin | Name | FUNCTIONS | Function ex except a port function |
|-----|--------------------|--------------|---|--|
| 1 | VCC | Power Source | Apply voltage of 2.7V-5.5V to VCC, and 0V to VSS. | |
| 2 | VREF | | | |
| 3 | AVSS | | | |
| 4 | P44/INT3/PWN | I/O port P4 | • 8-bit CMOS I/O port with the same function as port P0. | • Interrupt input pins • PWM output pin |
| 5 | P43/INT2 | I/O port P4 | • CMOS compatible input level. | • Interrupt input pins |
| 6 | P42/INT1 | I/O port P4 | • CMOS 3-state output structure. | |
| 7 | P41/INT0 | I/O port P4 | | • Timer Y function pin |
| 8 | P40/CNTR1 | I/O port P4 | | • Serial I/O function pin/ Timer X function pin |
| 9 | P27/CNTR0/ SRDY | I/O port P2 | • 8-bit CMOS I/O port. • I/O direction register allows each pin to be individually programmed as either input or output. | • Serial I/O function pin |
| 10 | P26/SCLK | I/O port P2 | | |
| 11 | P25/TXD | I/O port P2 | | |
| 12 | P24/RXD | I/O port P2 | • CMOS compatible input level. | |
| 13 | P23 | I/O port P2 | • P20,P21,P24 to P27: CMOS3-state output structure. | |
| 14 | P22 | I/O port P2 | • P22,P23,N-channel open-drain structure. | |
| 15 | CNVSS | CNVSS Input | • This pin controls the operation mode of the chip. • Normally connected to VSS. | |
| 16 | P21/XCIN | I/O port P2 | • 8-bit CMOS I/O port. | • Sub-clock generating circuit I/O pins(connect a resonator) |
| 17 | P20/XOUT | I/O port P2 | • I/O direction register allows each pin to be individually programmed as either input or output. • CMOS compatible input level. • P20,P21,P24 to P27: CMOS3-state output structure. • P22,P23,N-channel open-drain structure. | |
| 18 | RESET | Reset Input | • Reset input pin for active "L". | |
| 19 | XIN | Clock Input | • Input and output pins for the clock generating circuit. • Connect a ceramic resonator or quartz-crystal oscillator between the XIN and XOUT pins to set the oscillation frequency. | |
| 20 | XOUT | Clock Output | • When an external clock is used, connect the clock source to the Xin pin and leave the Xout pin open. | |
| 21 | VSS | Power Source | • Apply voltage of 2.7V-5.5V to VCC, and 0V to VSS. | |
| 22 | P17 | I/O port P1 | • 8-bit CMOS I/O port. | |
| 23 | P16 | | | |
| 24 | P15 | | • I/O direction register allows each pin to be individually programmed as either input or output. | |
| 25 | P14 | | | |
| 26 | P13 | | • CMOS compatible input level. | |
| 27 | P12 | | | |
| 28 | P11 | | • CMOS 3-state output structure. | |
| 29 | P10 | | | |
| 30 | P07 | I/O port P0 | • P13 to P17(5 bits) are enabled to output large current for LED drive. | |
| 31 | P06 | | | |
| 32 | P05 | | | |
| 33 | P04 | | | |
| 34 | P03 | | | |
| 35 | P02 | | | |
| 36 | P01 | | | |
| 37 | P00 | | | |
| 38 | P34/AN4 | I/O port P3 | • 8-bit CMOS I/O port with the same function as port P0. | • A-D converter input pin |
| 39 | P33/AN3 | | | |
| 40 | P32/AN2 | | • CMOS compatible input level. | |
| 41 | P31/AN1 | | • CMOS 3-state output structure. | |
| 42 | P30/AN0 | | | |

IC BLOCK DIAGRAM & DESCRIPTION

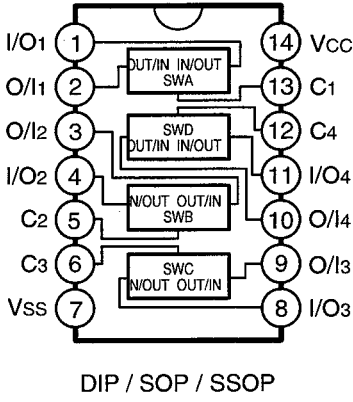
IC351 CXA1552P
(Dolby B type Noise Reduction System)



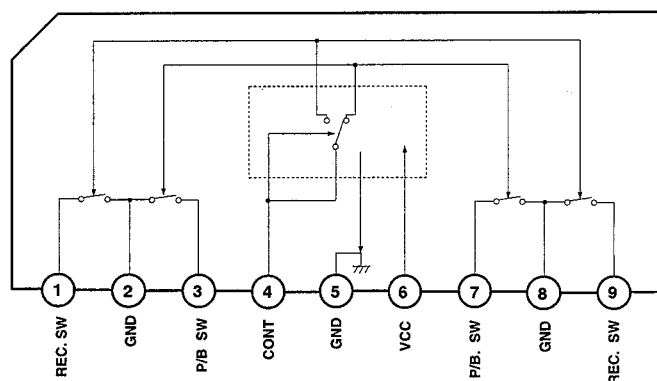
IC361 TC4011BF (CMOS Digital Integrated Circuit
Silicon Monolithic)



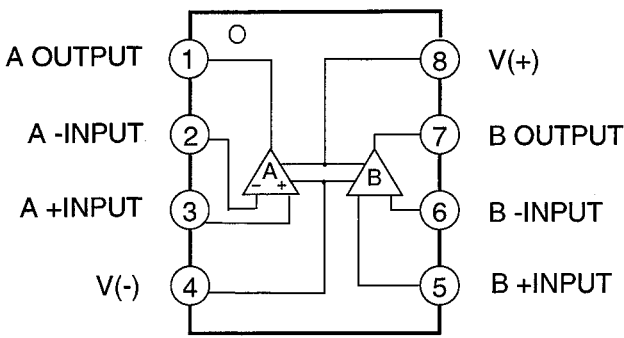
IC372 BU4066BCF (Quad Analog Switch)



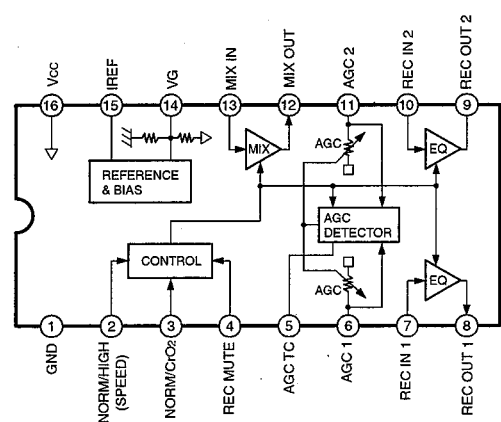
IC362 BA3126N (2-channel head switch for
radio cassette recorders)



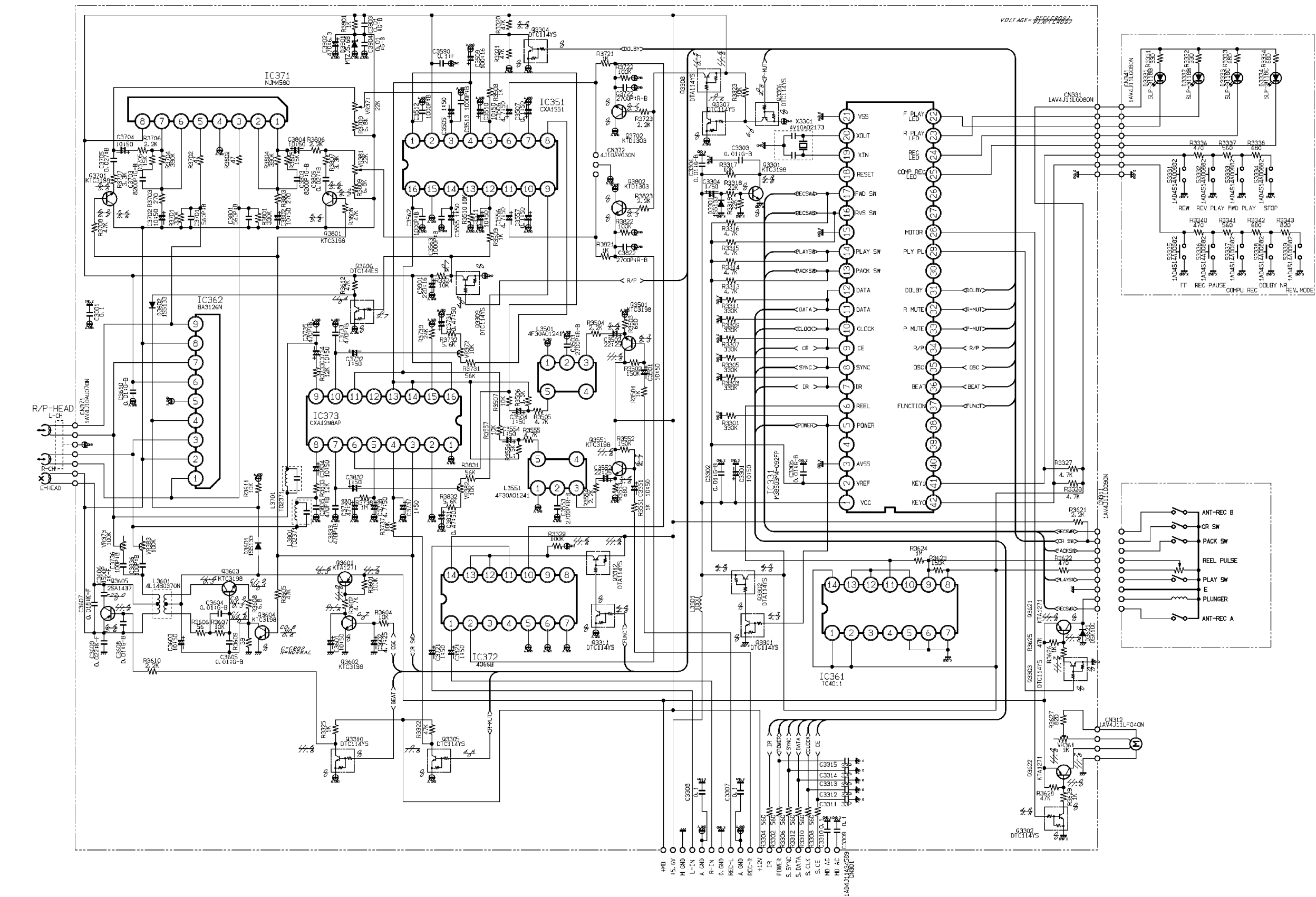
IC371 KIA4580L
(Dual Operation Amplifier)



IC373 CXA1298AP
(Stereo Tape Recording Equalizer Amplifier)

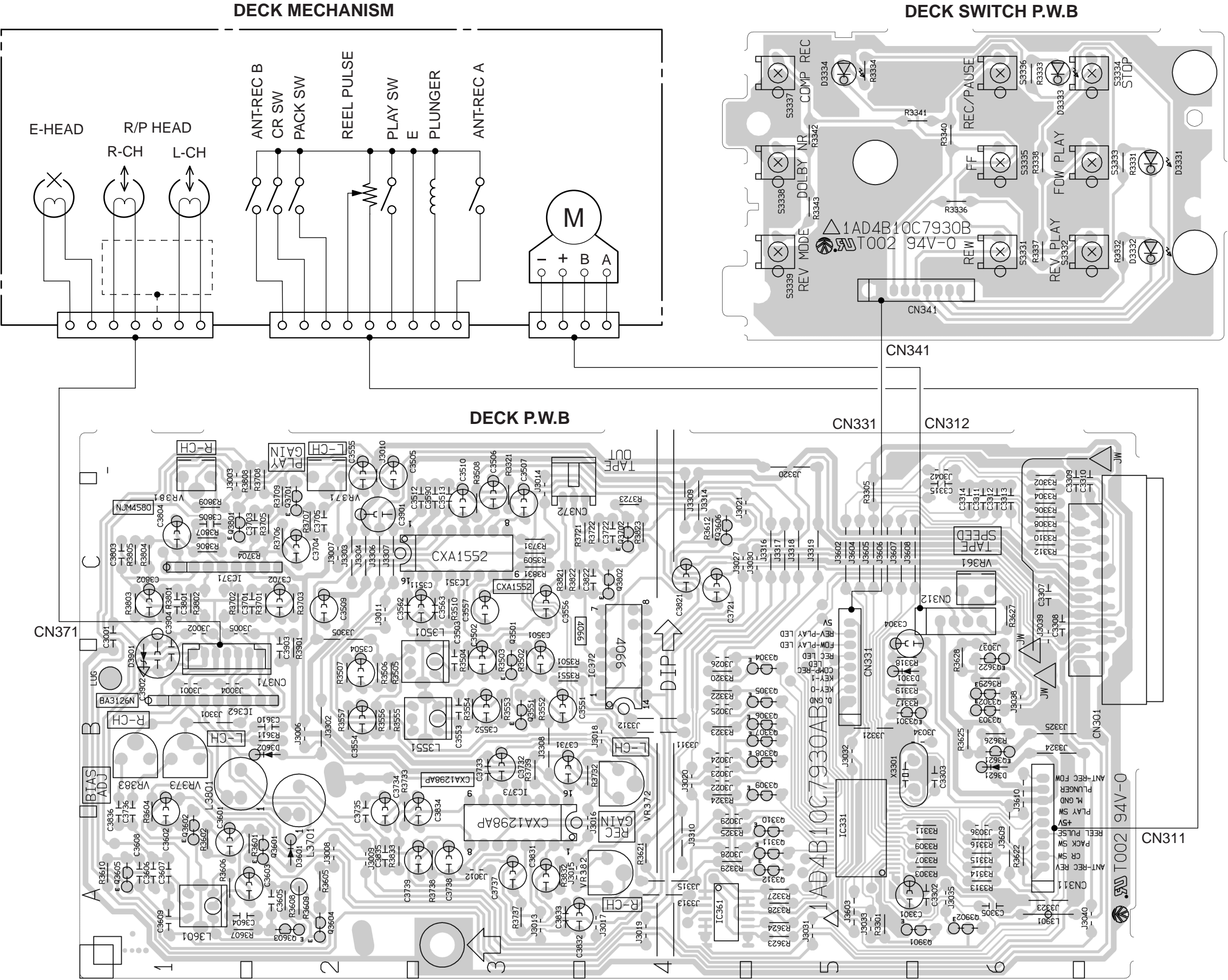


SCHEMATIC DIAGRAM (DECK)



| IC331 | PLAY | REC | OTHER |
|-------|------|-----|-------------|
| 1 | 4.7 | 4.7 | |
| 2 | 4.5 | 4.4 | |
| 3 | 0 | 0 | |
| 4 | 0 | 0 | |
| 5 | 4.3 | 4.3 | |
| 6 | - | - | |
| 7 | 2.7 | 2.8 | |
| 8 | 0 | 0 | |
| 9 | - | - | |
| 10 | 4.6 | 4.6 | |
| 11 | 0 | 0 | |
| 12 | 0 | 0 | |
| 13 | 0 | 0 | |
| 14 | 0 | 0 | |
| 15 | 0 | 0 | |
| 16 | 0 | 0 | |
| 17 | 0 | 0 | |
| 18 | 4.7 | 4.7 | |
| 19 | 1.9 | 2.0 | |
| 20 | 2.2 | 2.2 | |
| 21 | 0 | 0 | |
| 22 | 0.1 | 0.1 | 3.1 (REV) |
| 23 | 3.1 | 3.0 | 0.1 (REV) |
| 24 | 3.2 | 0.1 | |
| 25 | 3.2 | 3.1 | 0.1 (C-REC) |
| 26 | 0 | 0 | |
| 27 | 0 | 0 | |
| 28 | 4.7 | 4.7 | 0 (STOP) |
| 29 | 0 | 0 | |
| 30 | 0 | 0 | |
| 31 | 0 | 0 | 4.7 (ON) |
| 32 | 0 | 4.7 | |
| 33 | 4.7 | 0 | |
| 34 | 0 | 4.7 | |
| 35 | 0 | 4.7 | |
| 36 | 0 | 0 | 4.7 (BEAT2) |
| 37 | 4.7 | 4.7 | |
| 38 | 0 | 0 | |
| 39 | 0 | 0 | |
| 40 | 0 | 0 | |
| 41 | 4.5 | 4.4 | |
| 42 | 4.5 | 4.4 | |

| IC362 | PLAY | REC | OTHER |
|-------|------|------|--------|
| 1 | 5.6 | 5.6 | |
| 2 | 5.6 | 5.6 | |
| 3 | 5.6 | 5.6 | |
| 4 | 0.4 | 11.0 | |
| 5 | 0 | 0 | |
| 6 | 11.6 | 11.6 | |
| 7 | 5.6 | 5.6 | |
| 8 | 5.6 | 5.6 | |
| 9 | 5.6 | 5.6 | |
| IC371 | PLAY | REC | OTHER |
| 1 | 11.4 | 11.4 | |
| 2 | 5.6 | 5.6 | |
| 3 | 5.6 | 5.6 | |
| 4 | 5.6 | 5.6 | |
| 5 | 0 | 0 | |
| 6 | 5.6 | 5.6 | |
| 7 | 5.6 | 5.6 | |
| 8 | 5.6 | 5.6 | |
| 9 | 11.4 | 11.4 | |
| IC351 | PLAY | REC | OTHER |
| 1 | 5.7 | 5.7 | |
| 2 | 11.5 | 11.4 | |
| 3 | 5.7 | 5.7 | |
| 4 | 5.7 | 5.7 | |
| 5 | 5.7 | 5.7 | 0 (ON) |
| 6 | 5.8 | 5.7 | |
| 7 | 0.4 | 0.4 | |
| 8 | 5.8 | 5.7 | |
| 9 | 5.8 | 5.7 | |
| 10 | 0.4 | 0.4 | |
| 11 | 5.8 | 5.7 | |
| 12 | 0.7 | 0 | |
| 13 | 1.2 | 1.2 | |
| 14 | 5.7 | 5.7 | |
| 15 | 0 | 0 | |
| 16 | 5.7 | 5.7 | |
| IC372 | PLAY | REC | OTHER |
| 1 | 0.5 | 0 | |
| 2 | 0.5 | 0 | |
| 3 | 0.3 | 0.3 | |
| 4 | 0.3 | 0.4 | |
| 5 | 0 | 0 | |
| 6 | 0 | 0 | |
| 7 | 0 | 0 | |
| 8 | 0.4 | 0.4 | |
| 9 | 0.4 | 0.4 | |
| 10 | 0.5 | 0 | |
| 11 | 0.5 | 0 | |
| 12 | 11.5 | 11.5 | |
| 13 | 11.5 | 11.5 | |
| 14 | 11.5 | 11.5 | |
| IC373 | PLAY | REC | OTHER |
| 1 | 0 | 0 | |
| 2 | 0 | 0 | |
| 3 | 10.7 | 10.7 | |
| 4 | 11.5 | 0 | |
| 5 | 0 | 0.2 | |
| 6 | 5.7 | 5.7 | |
| 7 | 5.7 | 5.7 | |
| 8 | 5.4 | 5.3 | |
| 9 | 5.4 | 5.3 | |
| 10 | 5.7 | 5.7 | |
| 11 | 5.7 | 5.7 | |
| 12 | 5.8 | 5.7 | |
| 13 | 5.8 | 5.7 | |
| 14 | 5.8 | 5.7 | |
| 15 | 1.2 | 1.2 | |
| 16 | 11.6 | 11.6 | |
| IC361 | PLAY | REC | OTHER |
| 1 | 4.6 | 4.4 | |
| 2 | 4.6 | 4.4 | |
| 3 | 0 | 0 | |
| 4 | 4.6 | 4.4 | |
| 5 | 0 | 0 | |
| 6 | 0 | 0 | |
| 7 | 0 | 0 | |
| 8 | 4.6 | 4.4 | |
| 9 | - | - | |
| 10 | - | - | |
| 11 | - | - | |
| 12 | - | - | |
| 13 | - | - | |
| 14 | 4.6 | 4.4 | |



■■■■■■■■■■ DVD SECTION ■■■■■■■■■■

Please refer the service manual supplement (Manual number:SS5810163) for DVD section regarding DVD-X5/UK(137 097 00) and DVD-077/XE(137 097 01).

